



National Biennial RCRA Hazardous Waste Report (Based on 1991 Data)

NATIONAL ANALYSIS

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National Biennial RCRA Hazardous Waste Report

The United States Environmental Protection Agency (EPA), in cooperation with individual States,¹ biennially collects information regarding the generation, management, and final disposition of hazardous wastes regulated under the Resource Conservation and Recovery Act of 1976 (RCRA), as amended. The purpose of this report is to communicate the initial findings of EPA's 1991 Biennial Reporting System (BRS) data collection efforts to the public, government agencies, and the regulated community.²

1.0 WASTE GENERATION

This section presents a series of exhibits describing RCRA hazardous waste generation in 1991. Nationwide, 23,426 large quantity generators (LQGs) produced 306 million tons³ of hazardous waste subsequently regulated by RCRA.⁴ Throughout this report, the term RCRA hazardous waste refers to solid waste assigned a federal hazardous waste code and regulated by RCRA, either because it was managed in a unit subject to RCRA permitting standards or because it was shipped and subject to RCRA transportation requirements. Individual states may choose to regulate additional wastes not identified as hazardous by EPA. Hazardous wastes assigned only a state hazardous waste code are not included in this report. Similarly, hazardous wastes managed only in units subject to state permitting requirements, or wastes that are exempt from RCRA permitting requirements, are not included in this report.

Exhibits 1.1#, 1.2(, and 1.3(present the quantity of RCRA hazardous waste generated and the number of LQGs in each EPA region in 1991. Three regions produced

¹The term "State" includes the District of Columbia, Puerto Rico, Guam, the Trust Territories, and the Virgin Islands.

²BRS respondents have submitted confidential business information (CBI) pursuant to 40 CFR 260.2(b). While not included in any public BRS database, CBI has been incorporated into this report wherever possible. Where CBI has been omitted to preserve confidentiality, a footnote has been provided.

³English (short) tons.

⁴This quantity only includes waste managed in treatment units subject to RCRA permitting standards or subject to RCRA transportation regulations. Hazardous waste managed in units exempt from RCRA permitting standards, such as units permitted by the National Pollutant Discharge Elimination System (NPDES), were not included in this report.

National Biennial RCRA Hazardous Waste Report: Based on 1991 Data

Exhibit 1.1 **Number and Percentage of RCRA Hazardous Waste Generators and Total RCRA Hazardous Waste Quantity Generated, by EPA Region, 1991**

| EPA REGION | HAZARDOUS WASTE QUANTITY | | LARGE QUANTITY GENERATORS | |
|---------------|--------------------------|--------------|---------------------------|--------------|
| | TONS GENERATED | PERCENTAGE | NUMBER | PERCENTAGE |
| 1 | 2,416,332 | 0.8 | 1,526 | 6.5 |
| 2 | 50,648,243 | 16.6 | 4,386 | 18.7 |
| 3 | 9,505,997 | 3.1 | 2,152 | 9.2 |
| 4 | 12,948,706 | 4.2 | 3,320 | 14.2 |
| 5 | 54,312,901 | 17.8 | 5,080 | 21.7 |
| 6 | 137,402,630 | 44.9 | 2,081 | 8.9 |
| 7 | 4,063,618 | 1.3 | 807 | 3.4 |
| 8 | 2,078,526 | 0.7 | 364 | 1.6 |
| 9 | 13,098,837 | 4.3 | 2,482 | 10.6 |
| 10 | 19,233,091 | 6.3 | 1,228 | 5.2 |
| TOTAL | 305,708,881 | 100.0 | 23,426 | 100.0 |

Exhibit 1.2 **Number and Percentage of RCRA Hazardous Waste Generators and Total RCRA Hazardous Waste Quantity Generated in Each EPA Region, by Highest Quantity Generated, 1991**

| EPA REGION | HAZARDOUS WASTE QUANTITY | | LARGE QUANTITY GENERATORS | |
|---------------|--------------------------|--------------|---------------------------|--------------|
| | TONS GENERATED | PERCENTAGE | NUMBER | PERCENTAGE |
| 6 | 137,402,630 | 44.9 | 2,081 | 8.9 |
| 5 | 54,312,901 | 17.8 | 5,080 | 21.7 |
| 2 | 50,648,243 | 16.6 | 4,386 | 18.7 |
| 10 | 19,233,091 | 6.3 | 1,228 | 5.2 |
| 9 | 13,098,837 | 4.3 | 2,482 | 10.6 |
| 4 | 12,948,706 | 4.2 | 3,320 | 14.2 |
| 3 | 9,505,997 | 3.1 | 2,152 | 9.2 |
| 7 | 4,063,618 | 1.3 | 807 | 3.4 |
| 1 | 2,416,332 | 0.8 | 1,526 | 6.5 |
| 8 | 2,078,526 | 0.7 | 364 | 1.6 |
| TOTAL | 305,708,881 | 100.0 | 23,426 | 100.0 |

Note: Columns for these two exhibits may not sum due to rounding.

Exhibit 1.3 **Number and Percentage of RCRA Hazardous Waste Generators and Total RCRA Hazardous Waste Quantity Generated in Each EPA Region, by Highest Number of Generators, 1991**

| EPA REGION | LARGE QUANTITY GENERATORS | | HAZARDOUS WASTE QUANTITY | |
|---------------|---------------------------|--------------|--------------------------|--------------|
| | NUMBER | PERCENTAGE | TONS GENERATED | PERCENTAGE |
| 5 | 5,080 | 21.7 | 54,312,901 | 17.8 |
| 2 | 4,386 | 18.7 | 50,648,243 | 16.6 |
| 4 | 3,320 | 14.2 | 12,948,706 | 4.2 |
| 9 | 2,482 | 10.6 | 13,098,837 | 4.3 |
| 3 | 2,152 | 9.2 | 9,505,997 | 3.1 |
| 6 | 2,081 | 8.9 | 137,402,630 | 44.9 |
| 1 | 1,526 | 6.5 | 2,416,332 | 0.8 |
| 10 | 1,228 | 5.2 | 19,233,091 | 6.3 |
| 7 | 807 | 3.4 | 4,063,618 | 1.3 |
| 8 | 364 | 1.6 | 2,078,526 | 0.7 |
| TOTAL | 23,426 | 100.0 | 305,708,881 | 100.0 |

Note: Columns may not sum due to rounding.

79% of the 306 million tons generated nationwide. Region 6 generated 137 million tons, Region 5 generated 54 million tons, and Region 2 generated 51 million tons.

Certain states within these regions account for these high volumes of waste. As shown in Exhibits 1.4(, 1.5(, and 1.6(, the largest hazardous waste generating states were Texas (104 million tons), Michigan (32 million tons), Louisiana (31 million tons) and New Jersey (29 million tons). Together, these states account for 64% of the national total.

Large generators within these states account for the majority of these generation totals. As shown in Exhibit 1.7(, the largest 50 generators account for 81% (249 million tons) of the national total. Of the 50 generators, 22 are located in Texas. These 22 facilities account for 93% of Texas's generation total. The one Michigan site, Dow Chemical Co., accounts for 95% of Michigan's generation. The five Louisiana facilities account for 90% of Louisiana's generation. And, the one New Jersey site, E.I. DuPont Chambers Works, accounts for 97% of New Jersey's generation.

In 1991, 23,426 facilities identified themselves as large quantity generators (LQGs).⁵ The EPA regions with the largest numbers of LQGs were Region 5 (5,080), Region 2 (4,386), and Region 4 (3,320). These regions account for 55% of the total number of LQGs. See Exhibits 1.1#, 1.2(, and 1.3(. The states with the most LQGs were New York (2,627), California (2,116), and New Jersey (1,661). See Exhibits 1.4(, 1.5(, and 1.6(.

⁵ EPA lists all reported large quantity generators in the "National Biennial RCRA Hazardous Waste Report: List of Large Quantity Generators in the United States." This document may be obtained through the RCRA Hotline by calling 1-800-424-9346.

Exhibit 1.4 **Quantity of RCRA Hazardous Waste Generated, and Number of Hazardous Waste Generators, by State, 1991**

| STATE | HAZARDOUS WASTE QUANTITY | | | HAZARDOUS WASTE GENERATORS | | |
|----------------------|--------------------------|--------------------|--------------|----------------------------|----------------------|--------------|
| | RANK | TONS GENERATED | PERCENTAGE | RANK | NUMBER OF GENERATORS | PERCENTAGE |
| ALABAMA | 27 | 559,823 | 0.2 | 23 | 277 | 1.2 |
| ALASKA | 42 | 24,141 | 0.0 | 45 | 58 | 0.2 |
| ARIZONA | 34 | 158,279 | 0.1 | 26 | 249 | 1.1 |
| ARKANSAS | 23 | 748,018 | 0.2 | 34 | 149 | 0.6 |
| CALIFORNIA | 8 | 12,925,393 | 4.2 | 2 | 2,116 | 9.0 |
| COLORADO | 30 | 478,343 | 0.2 | 35 | 146 | 0.6 |
| CONNECTICUT | 15 | 2,062,163 | 0.7 | 15 | 483 | 2.1 |
| DELAWARE | 43 | 20,531 | 0.0 | 43 | 63 | 0.3 |
| DISTRICT OF COLUMBIA | 53 | 975 | 0.0 | 52 | 11 | 0.0 |
| FLORIDA | 28 | 508,839 | 0.2 | 18 | 399 | 1.7 |
| GEORGIA | 22 | 757,885 | 0.2 | 18 | 399 | 1.7 |
| GUAM | 55 | 346 | 0.0 | 53 | 8 | 0.0 |
| HAWAII | 51 | 2,032 | 0.0 | 48 | 35 | 0.1 |
| IDAHO | 12 | 4,350,064 | 1.4 | 47 | 40 | 0.2 |
| ILLINOIS | 7 | 13,086,020 | 4.3 | 7 | 1,229 | 5.2 |
| INDIANA | 19 | 1,633,861 | 0.5 | 11 | 671 | 2.9 |
| IOWA | 37 | 126,218 | 0.0 | 32 | 155 | 0.7 |
| KANSAS | 13 | 3,215,044 | 1.1 | 29 | 177 | 0.8 |
| KENTUCKY | 29 | 487,622 | 0.2 | 16 | 465 | 2.0 |
| LOUISIANA | 3 | 31,486,169 | 10.3 | 22 | 309 | 1.3 |
| MAINE | 46 | 11,657 | 0.0 | 32 | 155 | 0.7 |
| MARYLAND | 39 | 75,911 | 0.0 | 17 | 430 | 1.8 |
| MASSACHUSETTS | 32 | 274,985 | 0.1 | 14 | 552 | 2.4 |
| MICHIGAN | 2 | 31,862,518 | 10.4 | 9 | 755 | 3.2 |
| MINNESOTA | 11 | 5,662,647 | 1.9 | 24 | 276 | 1.2 |
| MISSISSIPPI | 9 | 8,050,831 | 2.6 | 28 | 178 | 0.8 |
| MISSOURI | 24 | 686,651 | 0.2 | 20 | 389 | 1.7 |
| MONTANA | 47 | 11,177 | 0.0 | 46 | 54 | 0.2 |
| NEBRASKA | 40 | 35,705 | 0.0 | 40 | 86 | 0.4 |
| NEVADA | 48 | 9,951 | 0.0 | 41 | 71 | 0.3 |
| NEW HAMPSHIRE | 44 | 17,309 | 0.0 | 30 | 166 | 0.7 |
| NEW JERSEY | 4 | 29,490,704 | 9.6 | 3 | 1,661 | 7.1 |
| NEW MEXICO | 35 | 155,943 | 0.1 | 42 | 68 | 0.3 |
| NEW YORK | 5 | 18,036,041 | 5.9 | 1 | 2,627 | 11.2 |
| NORTH CAROLINA | 31 | 281,849 | 0.1 | 13 | 582 | 2.5 |
| NORTH DAKOTA | 25 | 685,256 | 0.2 | 51 | 16 | 0.1 |
| OHIO | 16 | 1,809,547 | 0.6 | 4 | 1,542 | 6.6 |
| OKLAHOMA | 20 | 933,230 | 0.3 | 31 | 161 | 0.7 |
| OREGON | 36 | 132,297 | 0.0 | 27 | 191 | 0.8 |
| PENNSYLVANIA | 18 | 1,692,608 | 0.6 | 6 | 1,264 | 5.4 |
| PUERTO RICO | 14 | 3,120,686 | 1.0 | 39 | 97 | 0.4 |
| RHODE ISLAND | 45 | 14,653 | 0.0 | 37 | 107 | 0.5 |
| SOUTH CAROLINA | 26 | 604,456 | 0.2 | 21 | 337 | 1.4 |
| SOUTH DAKOTA | 52 | 979 | 0.0 | 50 | 21 | 0.1 |
| TENNESSEE | 17 | 1,697,402 | 0.6 | 10 | 683 | 2.9 |
| TEXAS | 1 | 104,079,270 | 34.0 | 5 | 1,394 | 6.0 |
| TRUST TERRITORIES | 49 | 2,835 | 0.0 | 54 | 3 | 0.0 |
| UTAH | 21 | 900,643 | 0.3 | 38 | 99 | 0.4 |
| VERMONT | 41 | 35,565 | 0.0 | 43 | 63 | 0.3 |
| VIRGIN ISLANDS | 54 | 811 | 0.0 | 55 | 1 | 0.0 |
| VIRGINIA | 38 | 96,169 | 0.0 | 25 | 264 | 1.1 |
| WASHINGTON | 6 | 14,726,588 | 4.8 | 8 | 939 | 4.0 |
| WEST VIRGINIA | 10 | 7,619,802 | 2.5 | 36 | 120 | 0.5 |
| WISCONSIN | 33 | 258,308 | 0.1 | 12 | 607 | 2.6 |
| WYOMING | 50 | 2,127 | 0.0 | 49 | 28 | 0.1 |
| TOTAL | | 305,708,881 | 100.0 | | 23,426 | 100.0 |

Note: Columns may not sum due to rounding.

National Biennial RCRA Hazardous Waste Report: Based on 1991 Data

Exhibit 1.5 Rank Ordering of States Based on Quantity of RCRA Hazardous Waste Generated, and Number of Hazardous Waste Generators, 1991

| STATE | HAZARDOUS WASTE QUANTITY | | | HAZARDOUS WASTE GENERATORS | | |
|----------------------|--------------------------|--------------------|--------------|----------------------------|----------------------|--------------|
| | RANK | TONS GENERATED | PERCENTAGE | RANK | NUMBER OF GENERATORS | PERCENTAGE |
| TEXAS | 1 | 104,079,270 | 34.0 | 5 | 1,394 | 6.0 |
| MICHIGAN | 2 | 31,862,518 | 10.4 | 9 | 755 | 3.2 |
| LOUISIANA | 3 | 31,486,169 | 10.3 | 22 | 309 | 1.3 |
| NEW JERSEY | 4 | 29,490,704 | 9.6 | 3 | 1,661 | 7.1 |
| NEW YORK | 5 | 18,036,041 | 5.9 | 1 | 2,627 | 11.2 |
| WASHINGTON | 6 | 14,726,588 | 4.8 | 8 | 939 | 4.0 |
| ILLINOIS | 7 | 13,086,020 | 4.3 | 7 | 1,229 | 5.2 |
| CALIFORNIA | 8 | 12,925,393 | 4.2 | 2 | 2,116 | 9.0 |
| MISSISSIPPI | 9 | 8,050,831 | 2.6 | 28 | 178 | 0.8 |
| WEST VIRGINIA | 10 | 7,619,802 | 2.5 | 36 | 120 | 0.5 |
| MINNESOTA | 11 | 5,662,647 | 1.9 | 24 | 276 | 1.2 |
| IDAHO | 12 | 4,350,064 | 1.4 | 47 | 40 | 0.2 |
| KANSAS | 13 | 3,215,044 | 1.1 | 29 | 177 | 0.8 |
| PUERTO RICO | 14 | 3,120,686 | 1.0 | 39 | 97 | 0.4 |
| CONNECTICUT | 15 | 2,062,163 | 0.7 | 15 | 483 | 2.1 |
| OHIO | 16 | 1,809,547 | 0.6 | 4 | 1,542 | 6.6 |
| TENNESSEE | 17 | 1,697,402 | 0.6 | 10 | 683 | 2.9 |
| PENNSYLVANIA | 18 | 1,692,608 | 0.6 | 6 | 1,264 | 5.4 |
| INDIANA | 19 | 1,633,861 | 0.5 | 11 | 671 | 2.9 |
| OKLAHOMA | 20 | 933,230 | 0.3 | 31 | 161 | 0.7 |
| UTAH | 21 | 900,643 | 0.3 | 38 | 99 | 0.4 |
| GEORGIA | 22 | 757,885 | 0.2 | 18 | 399 | 1.7 |
| ARKANSAS | 23 | 748,018 | 0.2 | 34 | 149 | 0.6 |
| MISSOURI | 24 | 686,651 | 0.2 | 20 | 389 | 1.7 |
| NORTH DAKOTA | 25 | 685,256 | 0.2 | 51 | 16 | 0.1 |
| SOUTH CAROLINA | 26 | 604,456 | 0.2 | 21 | 337 | 1.4 |
| ALABAMA | 27 | 559,823 | 0.2 | 23 | 277 | 1.2 |
| FLORIDA | 28 | 508,839 | 0.2 | 18 | 399 | 1.7 |
| KENTUCKY | 29 | 487,622 | 0.2 | 16 | 465 | 2.0 |
| COLORADO | 30 | 478,343 | 0.2 | 35 | 146 | 0.6 |
| NORTH CAROLINA | 31 | 281,849 | 0.1 | 13 | 582 | 2.5 |
| MASSACHUSETTS | 32 | 274,985 | 0.1 | 14 | 552 | 2.4 |
| WISCONSIN | 33 | 258,308 | 0.1 | 12 | 607 | 2.6 |
| ARIZONA | 34 | 158,279 | 0.1 | 26 | 249 | 1.1 |
| NEW MEXICO | 35 | 155,943 | 0.1 | 42 | 68 | 0.3 |
| OREGON | 36 | 132,297 | 0.0 | 27 | 191 | 0.8 |
| IOWA | 37 | 126,218 | 0.0 | 32 | 155 | 0.7 |
| VIRGINIA | 38 | 96,169 | 0.0 | 25 | 264 | 1.1 |
| MARYLAND | 39 | 75,911 | 0.0 | 17 | 430 | 1.8 |
| NEBRASKA | 40 | 35,705 | 0.0 | 40 | 86 | 0.4 |
| VERMONT | 41 | 35,565 | 0.0 | 43 | 63 | 0.3 |
| ALASKA | 42 | 24,141 | 0.0 | 45 | 58 | 0.2 |
| DELAWARE | 43 | 20,531 | 0.0 | 43 | 63 | 0.3 |
| NEW HAMPSHIRE | 44 | 17,309 | 0.0 | 30 | 166 | 0.7 |
| RHODE ISLAND | 45 | 14,653 | 0.0 | 37 | 107 | 0.5 |
| MAINE | 46 | 11,657 | 0.0 | 32 | 155 | 0.7 |
| MONTANA | 47 | 11,177 | 0.0 | 46 | 54 | 0.2 |
| NEVADA | 48 | 9,951 | 0.0 | 41 | 71 | 0.3 |
| TRUST TERRITORIES | 49 | 2,835 | 0.0 | 54 | 3 | 0.0 |
| WYOMING | 50 | 2,127 | 0.0 | 49 | 28 | 0.1 |
| HAWAII | 51 | 2,032 | 0.0 | 48 | 35 | 0.1 |
| SOUTH DAKOTA | 52 | 979 | 0.0 | 50 | 21 | 0.1 |
| DISTRICT OF COLUMBIA | 53 | 975 | 0.0 | 52 | 11 | 0.0 |
| VIRGIN ISLANDS | 54 | 811 | 0.0 | 55 | 1 | 0.0 |
| GUAM | 55 | 346 | 0.0 | 53 | 8 | 0.0 |
| TOTAL | | 305,708,881 | 100.0 | | 23,426 | 100.0 |

Note: Columns may not sum due to rounding.

Exhibit 1.6 Rank Ordering of States Based on Number of Hazardous Waste Generators, and Quantity of RCRA Hazardous Waste Generated, 1991

| STATE | HAZARDOUS WASTE GENERATORS | | | HAZARDOUS WASTE QUANTITY | | |
|----------------------|----------------------------|----------------------|--------------|--------------------------|--------------------|--------------|
| | RANK | NUMBER OF GENERATORS | PERCENTAGE | RANK | TONS GENERATED | PERCENTAGE |
| NEW YORK | 1 | 2,627 | 11.2 | 5 | 18,036,041 | 5.9 |
| CALIFORNIA | 2 | 2,116 | 9.0 | 8 | 12,925,393 | 4.2 |
| NEW JERSEY | 3 | 1,661 | 7.1 | 4 | 29,490,704 | 9.6 |
| OHIO | 4 | 1,542 | 6.6 | 16 | 1,809,547 | 0.6 |
| TEXAS | 5 | 1,394 | 6.0 | 1 | 104,079,270 | 34.0 |
| PENNSYLVANIA | 6 | 1,264 | 5.4 | 18 | 1,692,608 | 0.6 |
| ILLINOIS | 7 | 1,229 | 5.2 | 7 | 13,086,020 | 4.3 |
| WASHINGTON | 8 | 939 | 4.0 | 6 | 14,726,588 | 4.8 |
| MICHIGAN | 9 | 755 | 3.2 | 2 | 31,862,518 | 10.4 |
| TENNESSEE | 10 | 683 | 2.9 | 17 | 1,697,402 | 0.6 |
| INDIANA | 11 | 671 | 2.9 | 19 | 1,633,861 | 0.5 |
| WISCONSIN | 12 | 607 | 2.6 | 33 | 258,308 | 0.1 |
| NORTH CAROLINA | 13 | 582 | 2.5 | 31 | 281,849 | 0.1 |
| MASSACHUSETTS | 14 | 552 | 2.4 | 32 | 274,985 | 0.1 |
| CONNECTICUT | 15 | 483 | 2.1 | 15 | 2,062,163 | 0.7 |
| KENTUCKY | 16 | 465 | 2.0 | 29 | 487,622 | 0.2 |
| MARYLAND | 17 | 430 | 1.8 | 39 | 75,911 | 0.0 |
| FLORIDA | 18 | 399 | 1.7 | 28 | 508,839 | 0.2 |
| GEORGIA | 18 | 399 | 1.7 | 22 | 757,885 | 0.2 |
| MISSOURI | 20 | 389 | 1.7 | 24 | 686,651 | 0.2 |
| SOUTH CAROLINA | 21 | 337 | 1.4 | 26 | 604,456 | 0.2 |
| LOUISIANA | 22 | 309 | 1.3 | 3 | 31,486,169 | 10.3 |
| ALABAMA | 23 | 277 | 1.2 | 27 | 559,823 | 0.2 |
| MINNESOTA | 24 | 276 | 1.2 | 11 | 5,662,647 | 1.9 |
| VIRGINIA | 25 | 264 | 1.1 | 38 | 96,169 | 0.0 |
| ARIZONA | 26 | 249 | 1.1 | 34 | 158,279 | 0.1 |
| OREGON | 27 | 191 | 0.8 | 36 | 132,297 | 0.0 |
| MISSISSIPPI | 28 | 178 | 0.8 | 9 | 8,050,831 | 2.6 |
| KANSAS | 29 | 177 | 0.8 | 13 | 3,215,044 | 1.1 |
| NEW HAMPSHIRE | 30 | 166 | 0.7 | 44 | 17,309 | 0.0 |
| OKLAHOMA | 31 | 161 | 0.7 | 20 | 933,230 | 0.3 |
| MAINE | 32 | 155 | 0.7 | 46 | 11,657 | 0.0 |
| IOWA | 32 | 155 | 0.7 | 37 | 126,218 | 0.0 |
| ARKANSAS | 34 | 149 | 0.6 | 23 | 748,018 | 0.2 |
| COLORADO | 35 | 146 | 0.6 | 30 | 478,343 | 0.2 |
| WEST VIRGINIA | 36 | 120 | 0.5 | 10 | 7,619,802 | 2.5 |
| RHODE ISLAND | 37 | 107 | 0.5 | 45 | 14,653 | 0.0 |
| UTAH | 38 | 99 | 0.4 | 21 | 900,643 | 0.3 |
| PUERTO RICO | 39 | 97 | 0.4 | 14 | 3,120,686 | 1.0 |
| NEBRASKA | 40 | 86 | 0.4 | 40 | 35,705 | 0.0 |
| NEVADA | 41 | 71 | 0.3 | 48 | 9,951 | 0.0 |
| NEW MEXICO | 42 | 68 | 0.3 | 35 | 155,943 | 0.1 |
| DELAWARE | 43 | 63 | 0.3 | 43 | 20,531 | 0.0 |
| VERMONT | 43 | 63 | 0.3 | 41 | 35,565 | 0.0 |
| ALASKA | 45 | 58 | 0.2 | 42 | 24,141 | 0.0 |
| MONTANA | 46 | 54 | 0.2 | 47 | 11,177 | 0.0 |
| IDAHO | 47 | 40 | 0.2 | 12 | 4,350,064 | 1.4 |
| HAWAII | 48 | 35 | 0.1 | 51 | 2,032 | 0.0 |
| WYOMING | 49 | 28 | 0.1 | 50 | 2,127 | 0.0 |
| SOUTH DAKOTA | 50 | 21 | 0.1 | 52 | 979 | 0.0 |
| NORTH DAKOTA | 51 | 16 | 0.1 | 25 | 685,256 | 0.2 |
| DISTRICT OF COLUMBIA | 52 | 11 | 0.0 | 53 | 975 | 0.0 |
| GUAM | 53 | 8 | 0.0 | 55 | 346 | 0.0 |
| TRUST TERRITORIES | 54 | 3 | 0.0 | 49 | 2,835 | 0.0 |
| VIRGIN ISLANDS | 55 | 1 | 0.0 | 54 | 811 | 0.0 |
| TOTAL | | 23,426 | 100.0 | | 305,708,881 | 100.0 |

Note: Columns may not sum due to rounding.

National Biennial RCRA Hazardous Waste Report: Based on 1991 Data

Exhibit 1.7 Fifty Largest RCRA Hazardous Waste Generators in the U.S., 1991

| RANK | EPA ID | NAME | CITY | TONS GENERATED |
|--------------|--------------|--|-------------------|--------------------|
| 1 | MID000724724 | THE DOW CHEMICAL COMPANY | MIDLAND,MI | 30,149,025 |
| 2 | TXD008080533 | AMOCO OIL COMPANY REFINERY | TEXAS CITY,TX | 29,482,014 |
| 3 | NJD002385730 | E.I. DUPONT-CHAMBERS WORKS | DEER PARK,NJ | 28,736,216 |
| 4 | LAD008080350 | CITGO PETROLEUM CORPORATION | LAKE CHARLES,LA | 13,547,750 |
| 5 | TXD067285973 | SHELL OIL COMPANY | DEER PARK,TX | 10,647,199 |
| 6 | ILD080012305 | SHELL OIL CO | ROXANA,IL | 9,456,303 |
| 7 | TXD050309012 | AMOCO CHEMICAL COMPANY - CHOCOLATE BAYOU | ALVIN,TX | 8,251,999 |
| 8 | TXD048210645 | PHILLIPS PETROLEUM SWEENEY COMPLEX | OLD OCEAN,TX | 7,514,714 |
| 9 | CAD009164021 | SHELL OIL CO/MARTINEZ MFG COMP | MARTINEZ,CA | 7,303,645 |
| 10 | WVD005005509 | RHONE-POULENC AG COMPANY | INSTITUTE,WV | 6,657,469 |
| 11 | MSD054179403 | CHEVRON | PASCAGOULA,MS | 6,587,370 |
| 12 | LAD041581422 | UNION CARBIDE CHEMICALS & PLASTICS COMP. | TAFT,LA | 6,512,541 |
| 13 | TXD007330202 | TEXAS EASTMAN DIVISION, EASTMAN CHEMICAL | LONGVIEW,TX | 5,440,170 |
| 14 | LAD056024391 | BP OIL COMPANY - ALLIANCE REFINERY | BELLE CHASSE,LA | 5,340,948 |
| 15 | WAD069548154 | ARCO PRODUCTS CO | FERNDAL,WA | 5,110,410 |
| 16 | TXD008123317 | DUPONT DE NEMOURS & CO. | VICTORIA,TX | 4,049,395 |
| 17 | TXD000449694 | MOBIL CHEMICAL CO O/A PLANT | BEAUMONT,TX | 3,423,048 |
| 18 | WAD009275082 | SHELL OIL COMPANY | ANACORTES,WA | 3,340,516 |
| 19 | TXD008092793 | DOW CHEMICAL U.S.A. | FREEPORT,TX | 3,237,970 |
| 20 | TXD051161990 | CHAMPLIN REFINING AND CHEMICALS, INC. | CORPUS CHRISTI,TX | 3,162,733 |
| 21 | TXD058275769 | LYONDELL PETROCHEMICAL COMPANY | CHANNELVIEW,TX | 2,903,788 |
| 22 | WAD009276197 | TEXACO REFINING AND MARKETING | ANACORTES,WA | 2,872,898 |
| 23 | MND006172969 | 3M COMPANY | COTTAGE GROVE,MN | 2,668,111 |
| 24 | MND006162820 | ASHLAND PETROLEUM COMPANY | ST. PAUL PARK,MN | 2,618,665 |
| 25 | TXD065096273 | ROHM AND HAAS TEXAS, INC. | DEER PARK,TX | 2,513,688 |
| 26 | PRD090074071 | PUERTO RICO SUN OIL CO. | YABUCOA,PR | 2,510,110 |
| 27 | ID4890008952 | U.S. DOE IDAHO NATIONAL ENGINEERING LABO | SCOVILLE,ID | 2,374,518 |
| 28 | TXD001700806 | MONSANTO COMPANY | ALVIN,TX | 2,362,769 |
| 29 | TXD008079527 | STERLING CHEMICALS, INC. | TEXAS CITY,TX | 1,920,754 |
| 30 | TXD083472266 | ARCO CHEMICAL COMPANY/CHANNELVIEW | CHANNELVIEW,TX | 1,827,968 |
| 31 | KSD087418695 | TOTAL PETROLEUM INC | ARKANSAS CITY,KS | 1,821,923 |
| 32 | LAD008175390 | AMERICAN CYANAMID | WAGGAMAN,LA | 1,722,587 |
| 33 | CAD041472986 | NATIONAL SEMICONDUCTOR CORP | SANTA CLARA,CA | 1,605,142 |
| 34 | TXD000836486 | ISK BIOTECH CORP./GREENS BAYOU PLANT | HOUSTON,TX | 1,577,457 |
| 35 | CTD990672081 | PRATT & WHITNEY AIRCRAFT GROUP MD&CPD | EAST HARTFORD,CT | 1,559,659 |
| 36 | TXD059685339 | MCKEE PLANTS/DIAMOND SHAMROCK | SUNRAY,TX | 1,538,094 |
| 37 | WAD009250366 | BP OIL COMPANY FERNDAL REFINERY | FERNDAL,WA | 1,520,446 |
| 38 | ILD005092572 | NALCO CHEMICAL CO | BEDFORD PARK,IL | 1,426,092 |
| 39 | IDD070929518 | FMC CORPORATION POCATELLO | POCATELLO,ID | 1,286,725 |
| 40 | TX6170022770 | LTV AEROSPACE & DEFENSE CO. | DALLAS,TX | 1,258,442 |
| 41 | TXD980626014 | REXENE PRODUCTS COMPANY | ODESSA,TX | 1,223,866 |
| 42 | TXD008079642 | DU PONT SABINE RIVER WORKS | ORANGE,TX | 1,218,643 |
| 43 | KSD007482029 | VULCAN MATERIALS COMPANY | WICHITA,KS | 1,214,827 |
| 44 | TXD008081101 | E.I. DU PONT DE NEMOURS & CO., INC. | NEDERLAND,TX | 1,195,572 |
| 45 | WAD041337130 | BOEING - AUBURN | AUBURN,WA | 1,162,451 |
| 46 | TXD005942438 | AMOCO CHEMICAL COMPANY - PLANT B SITE | TEXAS CITY,TX | 1,161,508 |
| 47 | LAD008086506 | PPG INDUSTRIES, INC. | WESTLAKE,LA | 1,063,533 |
| 48 | CAD008354052 | MOBIL OIL CORP | TORRANCE,CA | 890,150 |
| 49 | TXD041515420 | SEADRIFT/UNION CARBIDE CHEM & PLASTICS | N. SEADRIFT,TX | 844,248 |
| 50 | OKD000829440 | ZINC CORPORATION OF AMERICA | BARTLESVILLE,OK | 803,218 |
| TOTAL | | | | 248,619,287 |

Notes:

- Column may not sum due to rounding.
- CBI data are excluded from this exhibit.

A generator is a large quantity generator if it met the following federal criteria:

- o The generator generated in any single month 1,000 kg (2,200 lbs. or 1.1 tons) or more RCRA hazardous waste; or
- o The generator generated in any single month, or accumulated at any time, 1 kg (2.2 lbs) of RCRA acute hazardous waste; or
- o The generator generated or accumulated at any time more than 100 kg (220 lbs) of spill cleanup material contaminated with RCRA acute hazardous.

According to these criteria, a generator that reports more than 13.2 tons (12 months x 1.1 tons) of annual hazardous waste generation must be a large quantity generator, because the generator must have generated at least 1.1 tons in at least one month. A generator that reports less than 13.2 tons in a year may not be a large quantity generator, because they may have generated less than 1.1 tons in every month. As shown in Exhibit 1.8, there are 14,190 generators that generated more than 13.2 tons in 1991, 8,086 that generated between 1.1 and 13.2 tons, and 1,150 that generated less than 1.1 tons. Most large quantity generators (9,091) generated between 13.2 and 113.2 tons, which is the range displayed in Exhibit 1.8 with the highest distribution. The range with the second highest distribution is that between 1.1 and 13.2 tons, with 8,086 generators. Together, these two ranges account for 73% of the total number of large quantity generators.

Hazardous waste is distinguished according to its designation as a characteristic or listed waste. Characteristic and listed wastes are specifically described in 40 CFR⁶ 261, and a list of waste codes is provided as Appendix B of this report.

The term "characteristic waste" refers to any solid waste that exhibits a characteristic of ignitability (D001), corrosivity (D002), or reactivity (D003), or that contains toxic constituents in excess of federal standards (D004 - D045).

⁶Code of Federal Regulations.

Exhibit 1.1 Most Large Quantity Generators Generate Between 1.1 and 113.2 Tons of Waste.

An ignitable waste is a solid waste that exhibits any of the following properties:

- o A liquid, except aqueous solutions containing less than 24 percent alcohol, that has a flash point less than 60 degrees Celsius (140 degrees Fahrenheit).
- o A nonliquid capable, under normal conditions, of spontaneous and sustained combustion.
- o An ignitable compressed gas per Department of Transportation (DOT) regulations.
- o An oxidizer per DOT regulation.

A corrosive waste is a waste that exhibits the following properties:

- o An aqueous material with pH less than or equal to 2 or greater than or equal to 12.5.
- o A liquid that corrodes steel at a rate greater than 1/4 inch per year at a temperature of 55 degrees Celsius (130 degrees Fahrenheit).

A reactive waste is a waste that exhibits the following properties:

- o Normally unstable and reacts violently without detonating.
- o Reacts violently with water.
- o Forms an explosive mixture with water.
- o Contains cyanide or sulfide and generates toxic gases, vapors, or fumes at a pH of between 2 and 12.5.
- o Capable of detonation if heated under confinement or subjected to strong initiating source.
- o Capable of detonation at standard temperature and pressure.
- o Listed by DOT as Class A or B explosive.

Wastes with the toxicity characteristic are identified through failure of the Toxicity Characteristic Leaching Procedure Test (TCLP). A solid waste exhibits the characteristic if, using the TCLP or an equivalent method, the extract from a representative sample of the waste contains any of the contaminants D005-D043 at a concentration equal to or greater than the value described in 40 CFR 261.24.

The term "listed waste" (F, K, P, and U codes) refers to waste that EPA has identified as hazardous as a result of its investigations of particular industries or because EPA has specifically recognized a commercial chemical waste's toxicity. A solid waste is hazardous if it is named on one of three lists developed by EPA:

- 1) Non-specific source wastes ('F' wastes)--These are generic wastes, commonly produced by manufacturing and industrial processes. Examples from this list include spent halogenated solvents used in degreasing and wastewater treatment sludge from electroplating processes as well as dioxin wastes, most of which are acutely hazardous wastes due to the danger they present to human health and the environment.
- 2) Specific source wastes ('K' wastes)--This list consists of wastes from specifically identified industries such as wood preserving, petroleum refining, and organic chemical manufacturing. These wastes typically include sludges, still bottoms, wastewaters, spent catalysts, and residues, e.g., wastewater treatment sludge from pigment production.

3) Commercial chemical products ('P' and 'U' wastes)--The third list consists of specific commercial chemical products, or manufacturing chemical intermediates. This list includes chemicals such as chloroform and creosote, acids such as sulfuric acid and hydrochloric acid, and pesticides such as DDT and kepone. The 'U' wastes include toxic chemicals while 'P' waste listings are reserved for acutely toxic chemicals.

Exhibit 1.9(shows the overall portions of the national generation total of 306 million tons that were characteristic, listed, or a mixture of characteristic and listed wastes. Characteristic wastes account for 72.0% (220 million tons) of the national total, listed wastes account for 8.2% (25 million tons), and mixtures of the two account for 19.4% (59 million tons). The unknown category in Exhibit 1.9(represents hazardous waste reported as lab packs rather than with RCRA codes. In 1991, there were 187 million tons more characteristic waste than were generated in 1989 (33 million tons). This large increase in characteristic wastes in 1991 may be the result of the Toxicity Characteristic (TC) Rule promulgated in 1990. The TC Rule added 25 new characteristic waste codes (D018-D043) and required more stringent analytical tests for the presence of characteristic toxic constituents in waste.

As shown in Exhibit 1.10), 137 million tons of waste were identified by these 25 new waste codes, indicating that, at a minimum, the TC Rule captured 137 million tons of previously unregulated wastes. Exhibit 1.11' shows that an additional 17 million tons of waste were described with D018-D043 and other characteristic codes. Another 8 million tons were described by D018-D043 and other listed waste codes. While it is not possible to calculate exactly the amount of waste that was newly regulated by the TC Rule and how much was regulated prior to 1990, as much as 162 million tons may have been captured by new toxicity characteristic waste listings.

In conclusion, the amount of hazardous waste generated in 1991 was between 144 and 169 million tons without these newly regulated wastes. This represents a decrease of 29 to 54 million tons from the amount of waste generated in 1989.

Exhibit 1.9

Percentages of National Generation Total That Were Characteristic, Listed, and Both Characteristic and Listed Wastes

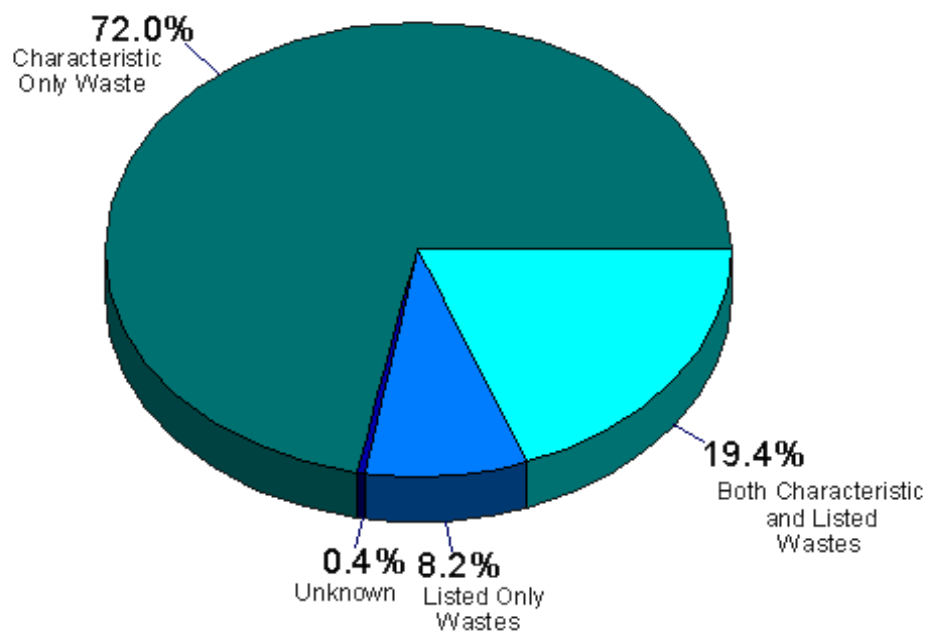


Exhibit 1.10

Tons of Generated Wastes that were Only Characteristic Wastes, Only Listed Wastes, or Both Characteristic and Listed Wastes, 1991

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| ONLY CHARACTERISTIC WASTES | | ONLY LISTED WASTES | | BOTH A CHARACTERISTIC AND A LISTED WASTE | |
|--------------------------------------|-------------|------------------------|------------|--|------------|
| ONLY IGNITABLE | 829,320 | ONLY F WASTES | 16,887,314 | | |
| ONLY CORROSIVE | 33,455,163 | ONLY K WASTES | 4,455,917 | | |
| ONLY REACTIVE | 3,430,789 | ONLY P WASTES | 27,937 | | |
| ONLY D004-17(TOXIC) | 19,994,063 | ONLY U WASTES | 458,903 | | |
| ONLY D018-43(TOXIC) | 137,310,192 | | | | |
| WASTES WITH MULTIPLE CHARACTERISTICS | 25,161,951 | WASTES MULTIPLY LISTED | 3,253,731 | | |
| TOTAL | 220,181,478 | TOTAL | 25,083,803 | TOTAL | 59,418,636 |

Note: All quantities are in tons.

Exhibit 1.11 Tons of Generated Wastes with Multiple Characteristics, that were Multiply Listed, or Both in 1991

| ONLY CHARACTERISTIC WASTES BUT WITH MULTIPLE CHARACTERISTICS | | ONLY LISTED WASTES BUT MULTIPLY LISTED | | BOTH CHARACTERISTIC AND LISTED WASTES ¹ | |
|--|-------------------|--|------------------|--|-------------------|
| Ignitable | 5,517,874 | | | Any Listed Waste also Ignitable | 7,521,185 |
| Corrosive | 20,070,179 | | | Any Listed Waste also Corrosive | 47,293,784 |
| Reactive | 6,135,790 | | | Any Listed Waste also Reactive | 2,629,854 |
| D004-17 (Toxic) | 11,223,254 | | | Any Listed Waste also D004-17(Toxic) | 38,682,794 |
| D018-43 (Toxic) | 16,894,666 | | | Any Listed Waste also D018-43(Toxic) | 7,820,153 |
| | | F Wastes | 1,295,214 | F Wastes with any Characteristic | 52,258,320 |
| | | K Wastes | 3,139,435 | K Wastes with any Characteristic | 42,157,050 |
| | | P Wastes | 2,612,585 | P Wastes with any Characteristic | 4,719,595 |
| | | U Wastes | 1,555,384 | U Wastes with any Characteristic | 8,196,331 |
| TOTAL² | 25,161,951 | TOTAL | 3,253,731 | TOTAL | 59,418,636 |

¹ Listed wastes with ignitable, corrosive, reactive, D004-17(Toxic), or D018-43(Toxic) characteristics respectively may have other characteristics as well. Similarly, characteristic wastes that are also F, K, P, or U listed wastes respectively may be other listed wastes as well.

² Columns do not sum to total because wastes may be included in more than one category.

Note: All quantities are in tons.

2.0 WASTE MANAGEMENT

This section presents a series of exhibits describing the management of RCRA hazardous waste. EPA collected hazardous waste management information from any facility that operated treatment, storage, or disposal (TSD) units subject to RCRA permitting standards in 1991. These facilities are referred to throughout this report as TSDs. Wastes managed in treatment systems exempt from RCRA permitting requirements, such as those subject to Clean Water Act or Safe Drinking Water Act permitting requirements, were not included in this report.

Exhibits 2.1%, 2.2&, and 2.3(present the quantity of RCRA hazardous waste managed and the number of TSDs in the United States and in each EPA region. Overall, a total of 3,862 facilities reported that they managed hazardous waste in TSD units subject to RCRA permitting standards. This represents an 800 facility increase in the number of TSDs in 1989. Storage facilities account for 2,659 of these facilities, leaving 1,203 facilities that actually treated or disposed of 294 million tons of hazardous waste; which is a 98 million ton increase over 1989 quantities.

Region 6 managed the largest amount of waste (137 million tons, or 47%), while ranking fifth in the number of TSDs (352). Region 2 had the highest number of TSDs (924) and ranked third in the amount of waste managed. Region 8 had the smallest number of TSDs and managed the least waste.

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Exhibit 2.1 **Number and Percentage of RCRA TSD Facilities and RCRA Hazardous Waste Quantity Managed, by EPA Region, 1991**

| EPA REGION | HAZARDOUS WASTE QUANTITY ¹ | | TSD FACILITIES | |
|--------------|---------------------------------------|--------------|----------------|--------------|
| | TONS MANAGED | PERCENTAGE | NUMBER | PERCENTAGE |
| 1 | 390,337 | 0.1 | 194 | 5.0 |
| 2 | 51,033,570 | 17.3 | 924 | 23.9 |
| 3 | 9,105,896 | 3.1 | 265 | 6.9 |
| 4 | 11,847,776 | 4.0 | 511 | 13.2 |
| 5 | 53,068,621 | 18.0 | 760 | 19.7 |
| 6 | 137,423,123 | 46.7 | 352 | 9.1 |
| 7 | 4,009,857 | 1.4 | 174 | 4.5 |
| 8 | 1,440,228 | 0.5 | 88 | 2.3 |
| 9 | 12,308,044 | 4.2 | 467 | 12.1 |
| 10 | 13,809,857 | 4.7 | 127 | 3.3 |
| TOTAL | 294,437,307 | 100.0 | 3,862 | 100.0 |

Exhibit 2.2 **Number and Percentage of RCRA TSD Facilities and RCRA Hazardous Waste Quantity Managed, by Management Quantity, 1991**

| EPA REGION | HAZARDOUS WASTE QUANTITY ¹ | | TSD FACILITIES | |
|--------------|---------------------------------------|--------------|----------------|--------------|
| | TONS MANAGED | PERCENTAGE | NUMBER | PERCENTAGE |
| 6 | 137,423,123 | 46.7 | 352 | 9.1 |
| 5 | 53,068,621 | 18.0 | 760 | 19.7 |
| 2 | 51,033,570 | 17.3 | 924 | 23.9 |
| 10 | 13,809,857 | 4.7 | 127 | 3.3 |
| 9 | 12,308,044 | 4.2 | 467 | 12.1 |
| 4 | 11,847,776 | 4.0 | 511 | 13.2 |
| 3 | 9,105,896 | 3.1 | 265 | 6.9 |
| 7 | 4,009,857 | 1.4 | 174 | 4.5 |
| 8 | 1,440,228 | 0.5 | 88 | 2.3 |
| 1 | 390,337 | 0.1 | 194 | 5.0 |
| TOTAL | 294,437,307 | 100.0 | 3,862 | 100.0 |

¹Quantity managed only by storage is excluded.

Note: Columns may not sum due to rounding.

Exhibit 2.3 **Number and Percentage of RCRA TSD Facilities and RCRA Hazardous Waste Quantity Managed in Each EPA Region, by Highest Number of TSD Facilities, 1991**

| EPA REGION | TSD FACILITIES | | HAZARDOUS WASTE QUANTITY ¹ | |
|--------------|----------------|--------------|---------------------------------------|--------------|
| | NUMBER | PERCENTAGE | TONS MANAGED | PERCENTAGE |
| 2 | 924 | 23.9 | 51,033,570 | 17.3 |
| 5 | 760 | 19.7 | 53,068,621 | 18.0 |
| 4 | 511 | 13.2 | 11,847,776 | 4.0 |
| 9 | 467 | 12.1 | 12,308,044 | 4.2 |
| 6 | 352 | 9.1 | 137,423,123 | 46.7 |
| 3 | 265 | 6.9 | 9,105,896 | 3.1 |
| 1 | 194 | 5.0 | 390,337 | 0.1 |
| 7 | 174 | 4.5 | 4,009,857 | 1.4 |
| 10 | 127 | 3.3 | 13,809,857 | 4.7 |
| 8 | 88 | 2.3 | 1,440,228 | 0.5 |
| TOTAL | 3,862 | 100.0 | 294,437,307 | 100.0 |

¹Quantity managed only by storage is excluded.

Note: Columns may not sum due to rounding.

Exhibits 2.4\$, 2.5 , and 2.6(present the quantity of RCRA hazardous waste managed and the number of TSDs in each state. Texas managed the largest amount of waste (104 million tons), followed by Michigan (32 million tons), Louisiana (32 million tons), and New Jersey (30 million tons). New Jersey reported the most TSDs (781), followed by California (409), Illinois (217), and Texas (206). There were no facilities in the District of Columbia, Guam, New Hampshire, South Dakota, and Vermont that reported treating or disposing waste in units subject to RCA permitting standards, although these states did have facilities that reported operating permitted storage facilities.

Exhibit 2.7# presents the 50 largest hazardous waste management facilities in the United States. Together, these TSDs accounted for more than 80% of the national management total. The Dow Chemical Company in Midland, Michigan was the largest TSD, managing 30 million tons of waste, followed by Dupont Chambers Works in Deepwater, New Jersey, and Amoco Oil Company Refinery in Texas City, Texas. A total of 22 of the 50 largest TSDs were in Texas.

Exhibit 2.8(shows that wastewater management¹ (i.e., management in aqueous treatment units, neutralization tanks, underground injection wells, or other wastewater treatment systems) accounts for 97% of the national management total. Because most management is wastewater management, it can be inferred that most waste is waste water.

¹Wastewater management is the management method described by the following BRS system type codes: M071-079, M081-085, M089, M091-094, M099, M121-125, M129, and M134. See Appendix A for further information.

Exhibit 2.4 Quantity of RCRA Hazardous Waste Managed and Number of TSDs, by State, 1991

| STATE | RCRA HAZARDOUS WASTE QUANTITY ¹ | | | TSD FACILITIES | | |
|----------------------|--|--------------------|--------------|----------------|--------------|--------------|
| | RANK | TONS MANAGED | PERCENTAGE | RANK | NUMBER | PERCENTAGE |
| ALABAMA | 23 | 675,999 | 0.2 | 23 | 54 | 1.4 |
| ALASKA | 40 | 21,178 | 0.0 | 27 | 41 | 1.1 |
| ARIZONA | 36 | 122,891 | 0.0 | 31 | 33 | 0.9 |
| ARKANSAS | 21 | 757,956 | 0.3 | 37 | 24 | 0.6 |
| CALIFORNIA | 6 | 12,130,053 | 4.1 | 2 | 409 | 10.6 |
| COLORADO | 26 | 468,167 | 0.2 | 29 | 40 | 1.0 |
| CONNECTICUT | 27 | 371,208 | 0.1 | 13 | 77 | 2.0 |
| DELAWARE | 45 | 2,273 | 0.0 | 42 | 11 | 0.3 |
| DISTRICT OF COLUMBIA | 51 | 0 | 0.0 | 51 | 2 | 0.1 |
| FLORIDA | 32 | 195,490 | 0.1 | 15 | 72 | 1.9 |
| GEORGIA | 18 | 1,103,055 | 0.4 | 21 | 59 | 1.5 |
| GUAM | 51 | 0 | 0.0 | 51 | 2 | 0.1 |
| HAWAII | 46 | 1,428 | 0.0 | 44 | 9 | 0.2 |
| IDAHO | 13 | 3,178,455 | 1.1 | 42 | 11 | 0.3 |
| ILLINOIS | 7 | 12,083,019 | 4.1 | 3 | 217 | 5.6 |
| INDIANA | 16 | 1,405,359 | 0.5 | 8 | 102 | 2.6 |
| IOWA | 37 | 83,336 | 0.0 | 34 | 30 | 0.8 |
| KANSAS | 12 | 3,310,784 | 1.1 | 27 | 41 | 1.1 |
| KENTUCKY | 28 | 300,060 | 0.1 | 32 | 32 | 0.8 |
| LOUISIANA | 3 | 31,589,603 | 10.7 | 19 | 63 | 1.6 |
| MAINE | 47 | 1,054 | 0.0 | 24 | 52 | 1.3 |
| MARYLAND | 41 | 19,084 | 0.0 | 12 | 79 | 2.0 |
| MASSACHUSETTS | 42 | 9,433 | 0.0 | 26 | 43 | 1.1 |
| MICHIGAN | 2 | 31,922,898 | 10.8 | 6 | 152 | 3.9 |
| MINNESOTA | 11 | 5,565,626 | 1.9 | 20 | 60 | 1.6 |
| MISSISSIPPI | 9 | 8,013,068 | 2.7 | 22 | 56 | 1.5 |
| MISSOURI | 24 | 589,673 | 0.2 | 10 | 87 | 2.3 |
| MONTANA | 44 | 3,270 | 0.0 | 44 | 9 | 0.2 |
| NEBRASKA | 39 | 26,065 | 0.0 | 39 | 16 | 0.4 |
| NEVADA | 38 | 52,784 | 0.0 | 41 | 12 | 0.3 |
| NEW HAMPSHIRE | 51 | 0 | 0.0 | 51 | 2 | 0.1 |
| NEW JERSEY | 4 | 29,662,220 | 10.1 | 1 | 781 | 20.2 |
| NEW MEXICO | 33 | 148,932 | 0.1 | 38 | 20 | 0.5 |
| NEW YORK | 5 | 18,320,124 | 6.2 | 7 | 109 | 2.8 |
| NORTH CAROLINA | 30 | 252,993 | 0.1 | 14 | 74 | 1.9 |
| NORTH DAKOTA | 22 | 683,825 | 0.2 | 47 | 6 | 0.2 |
| OHIO | 15 | 1,870,654 | 0.6 | 5 | 185 | 4.8 |
| OKLAHOMA | 19 | 980,618 | 0.3 | 30 | 39 | 1.0 |
| OREGON | 34 | 133,021 | 0.0 | 44 | 9 | 0.2 |
| PENNSYLVANIA | 17 | 1,405,204 | 0.5 | 11 | 80 | 2.1 |
| PUERTO RICO | 14 | 3,051,006 | 1.0 | 32 | 32 | 0.8 |
| RHODE ISLAND | 43 | 8,642 | 0.0 | 40 | 15 | 0.4 |
| SOUTH CAROLINA | 25 | 528,458 | 0.2 | 18 | 64 | 1.7 |
| SOUTH DAKOTA | 51 | 0 | 0.0 | 50 | 3 | 0.1 |
| TENNESSEE | 20 | 778,652 | 0.3 | 9 | 100 | 2.6 |
| TEXAS | 1 | 103,946,014 | 35.3 | 4 | 206 | 5.3 |
| TRUST TERRITORIES | 48 | 887 | 0.0 | 51 | 2 | 0.1 |
| UTAH | 29 | 284,846 | 0.1 | 36 | 26 | 0.7 |
| VERMONT | 51 | 0 | 0.0 | 48 | 5 | 0.1 |
| VIRGIN ISLANDS | 49 | 219 | 0.0 | 51 | 2 | 0.1 |
| VIRGINIA | 35 | 126,998 | 0.0 | 16 | 66 | 1.7 |
| WASHINGTON | 8 | 10,477,204 | 3.6 | 16 | 66 | 1.7 |
| WEST VIRGINIA | 10 | 7,552,337 | 2.6 | 35 | 27 | 0.7 |
| WISCONSIN | 31 | 221,065 | 0.1 | 25 | 44 | 1.1 |
| WYOMING | 50 | 119 | 0.0 | 49 | 4 | 0.1 |
| TOTAL | | 294,437,307 | 100.0 | | 3,862 | 100.0 |

¹Quantity managed only by storage is excluded.**Note:** Columns may not sum due to rounding.

National Biennial RCRA Hazardous Waste Report: Based on 1991 Data

Exhibit 2.5 Rank Ordering of States Based on Quantity of RCRA Hazardous Waste Managed, and Number of TSDs, 1991

| STATE | RCRA HAZARDOUS WASTE QUANTITY ¹ | | | TSD FACILITIES | | |
|----------------------|--|--------------------|--------------|----------------|--------------|--------------|
| | RANK | TONS MANAGED | PERCENTAGE | RANK | NUMBER | PERCENTAGE |
| TEXAS | 1 | 103,946,014 | 35.3 | 4 | 206 | 5.3 |
| MICHIGAN | 2 | 31,922,898 | 10.8 | 6 | 152 | 3.9 |
| LOUISIANA | 3 | 31,589,603 | 10.7 | 19 | 63 | 1.6 |
| NEW JERSEY | 4 | 29,662,220 | 10.1 | 1 | 781 | 20.2 |
| NEW YORK | 5 | 18,320,124 | 6.2 | 7 | 109 | 2.8 |
| CALIFORNIA | 6 | 12,130,053 | 4.1 | 2 | 409 | 10.6 |
| ILLINOIS | 7 | 12,083,019 | 4.1 | 3 | 217 | 5.6 |
| WASHINGTON | 8 | 10,477,204 | 3.6 | 16 | 66 | 1.7 |
| MISSISSIPPI | 9 | 8,013,068 | 2.7 | 22 | 56 | 1.5 |
| WEST VIRGINIA | 10 | 7,552,337 | 2.6 | 35 | 27 | 0.7 |
| MINNESOTA | 11 | 5,565,626 | 1.9 | 20 | 60 | 1.6 |
| KANSAS | 12 | 3,310,784 | 1.1 | 27 | 41 | 1.1 |
| IDAHO | 13 | 3,178,455 | 1.1 | 42 | 11 | 0.3 |
| PUERTO RICO | 14 | 3,051,006 | 1.0 | 32 | 32 | 0.8 |
| OHIO | 15 | 1,870,654 | 0.6 | 5 | 185 | 4.8 |
| INDIANA | 16 | 1,405,359 | 0.5 | 8 | 102 | 2.6 |
| PENNSYLVANIA | 17 | 1,405,204 | 0.5 | 11 | 80 | 2.1 |
| GEORGIA | 18 | 1,103,055 | 0.4 | 21 | 59 | 1.5 |
| OKLAHOMA | 19 | 980,618 | 0.3 | 30 | 39 | 1.0 |
| TENNESSEE | 20 | 778,652 | 0.3 | 9 | 100 | 2.6 |
| ARKANSAS | 21 | 757,956 | 0.3 | 37 | 24 | 0.6 |
| NORTH DAKOTA | 22 | 683,825 | 0.2 | 47 | 6 | 0.2 |
| ALABAMA | 23 | 675,999 | 0.2 | 23 | 54 | 1.4 |
| MISSOURI | 24 | 589,673 | 0.2 | 10 | 87 | 2.3 |
| SOUTH CAROLINA | 25 | 528,458 | 0.2 | 18 | 64 | 1.7 |
| COLORADO | 26 | 468,167 | 0.2 | 29 | 40 | 1.0 |
| CONNECTICUT | 27 | 371,208 | 0.1 | 13 | 77 | 2.0 |
| KENTUCKY | 28 | 300,060 | 0.1 | 32 | 32 | 0.8 |
| UTAH | 29 | 284,846 | 0.1 | 36 | 26 | 0.7 |
| NORTH CAROLINA | 30 | 252,993 | 0.1 | 14 | 74 | 1.9 |
| WISCONSIN | 31 | 221,065 | 0.1 | 25 | 44 | 1.1 |
| FLORIDA | 32 | 195,490 | 0.1 | 15 | 72 | 1.9 |
| NEW MEXICO | 33 | 148,932 | 0.1 | 38 | 20 | 0.5 |
| OREGON | 34 | 133,021 | 0.0 | 44 | 9 | 0.2 |
| VIRGINIA | 35 | 126,998 | 0.0 | 16 | 66 | 1.7 |
| ARIZONA | 36 | 122,891 | 0.0 | 31 | 33 | 0.9 |
| IOWA | 37 | 83,336 | 0.0 | 34 | 30 | 0.8 |
| NEVADA | 38 | 52,784 | 0.0 | 41 | 12 | 0.3 |
| NEBRASKA | 39 | 26,065 | 0.0 | 39 | 16 | 0.4 |
| ALASKA | 40 | 21,178 | 0.0 | 27 | 41 | 1.1 |
| MARYLAND | 41 | 19,084 | 0.0 | 12 | 79 | 2.0 |
| MASSACHUSETTS | 42 | 9,433 | 0.0 | 26 | 43 | 1.1 |
| RHODE ISLAND | 43 | 8,642 | 0.0 | 40 | 15 | 0.4 |
| MONTANA | 44 | 3,270 | 0.0 | 44 | 9 | 0.2 |
| DELAWARE | 45 | 2,273 | 0.0 | 42 | 11 | 0.3 |
| HAWAII | 46 | 1,428 | 0.0 | 44 | 9 | 0.2 |
| MAINE | 47 | 1,054 | 0.0 | 24 | 52 | 1.3 |
| TRUST TERRITORIES | 48 | 887 | 0.0 | 51 | 2 | 0.1 |
| VIRGIN ISLANDS | 49 | 219 | 0.0 | 51 | 2 | 0.1 |
| WYOMING | 50 | 119 | 0.0 | 49 | 4 | 0.1 |
| DISTRICT OF COLUMBIA | 51 | 0 | 0.0 | 51 | 2 | 0.1 |
| GUAM | 51 | 0 | 0.0 | 51 | 2 | 0.1 |
| NEW HAMPSHIRE | 51 | 0 | 0.0 | 51 | 2 | 0.1 |
| SOUTH DAKOTA | 51 | 0 | 0.0 | 50 | 3 | 0.1 |
| VERMONT | 51 | 0 | 0.0 | 48 | 5 | 0.1 |
| TOTAL | | 294,437,307 | 100.0 | | 3,862 | 100.0 |

¹Quantity managed only by storage is excluded.

Note: Columns may not sum due to rounding.

Exhibit 2.6 Rank Ordering of States Based on Number of TSD Facilities, and Quantity of Hazardous Waste Managed, 1991

| STATE | TSD FACILITIES | | | RCRA HAZARDOUS WASTE QUANTITY ¹ | | |
|----------------------|----------------|--------------|--------------|--|--------------------|--------------|
| | RANK | NUMBER | PERCENTAGE | RANK | TONS MANAGED | PERCENTAGE |
| NEW JERSEY | 1 | 781 | 20.2 | 4 | 29,662,220 | 10.1 |
| CALIFORNIA | 2 | 409 | 10.6 | 6 | 12,130,053 | 4.1 |
| ILLINOIS | 3 | 217 | 5.6 | 7 | 12,083,019 | 4.1 |
| TEXAS | 4 | 206 | 5.3 | 1 | 103,946,014 | 35.3 |
| OHIO | 5 | 185 | 4.8 | 15 | 1,870,654 | 0.6 |
| MICHIGAN | 6 | 152 | 3.9 | 2 | 31,922,898 | 10.8 |
| NEW YORK | 7 | 109 | 2.8 | 5 | 18,320,124 | 6.2 |
| INDIANA | 8 | 102 | 2.6 | 16 | 1,405,359 | 0.5 |
| TENNESSEE | 9 | 100 | 2.6 | 20 | 778,652 | 0.3 |
| MISSOURI | 10 | 87 | 2.3 | 24 | 589,673 | 0.2 |
| PENNSYLVANIA | 11 | 80 | 2.1 | 17 | 1,405,204 | 0.5 |
| MARYLAND | 12 | 79 | 2.0 | 41 | 19,084 | 0.0 |
| CONNECTICUT | 13 | 77 | 2.0 | 27 | 371,208 | 0.1 |
| NORTH CAROLINA | 14 | 74 | 1.9 | 30 | 252,993 | 0.1 |
| FLORIDA | 15 | 72 | 1.9 | 32 | 195,490 | 0.1 |
| VIRGINIA | 16 | 66 | 1.7 | 35 | 126,998 | 0.0 |
| WASHINGTON | 16 | 66 | 1.7 | 8 | 10,477,204 | 3.6 |
| SOUTH CAROLINA | 18 | 64 | 1.7 | 25 | 528,458 | 0.2 |
| LOUISIANA | 19 | 63 | 1.6 | 3 | 31,589,603 | 10.7 |
| MINNESOTA | 20 | 60 | 1.6 | 11 | 5,565,626 | 1.9 |
| GEORGIA | 21 | 59 | 1.5 | 18 | 1,103,055 | 0.4 |
| MISSISSIPPI | 22 | 56 | 1.5 | 9 | 8,013,068 | 2.7 |
| ALABAMA | 23 | 54 | 1.4 | 23 | 675,999 | 0.2 |
| MAINE | 24 | 52 | 1.3 | 47 | 1,054 | 0.0 |
| WISCONSIN | 25 | 44 | 1.1 | 31 | 221,065 | 0.1 |
| MASSACHUSETTS | 26 | 43 | 1.1 | 42 | 9,433 | 0.0 |
| ALASKA | 27 | 41 | 1.1 | 40 | 21,178 | 0.0 |
| KANSAS | 27 | 41 | 1.1 | 12 | 3,310,784 | 1.1 |
| COLORADO | 29 | 40 | 1.0 | 26 | 468,167 | 0.2 |
| OKLAHOMA | 30 | 39 | 1.0 | 19 | 980,618 | 0.3 |
| ARIZONA | 31 | 33 | 0.9 | 36 | 122,891 | 0.0 |
| KENTUCKY | 32 | 32 | 0.8 | 28 | 300,060 | 0.1 |
| PUERTO RICO | 32 | 32 | 0.8 | 14 | 3,051,006 | 1.0 |
| IOWA | 34 | 30 | 0.8 | 37 | 83,336 | 0.0 |
| WEST VIRGINIA | 35 | 27 | 0.7 | 10 | 7,552,337 | 2.6 |
| UTAH | 36 | 26 | 0.7 | 29 | 284,846 | 0.1 |
| ARKANSAS | 37 | 24 | 0.6 | 21 | 757,956 | 0.3 |
| NEW MEXICO | 38 | 20 | 0.5 | 33 | 148,932 | 0.1 |
| NEBRASKA | 39 | 16 | 0.4 | 39 | 26,065 | 0.0 |
| RHODE ISLAND | 40 | 15 | 0.4 | 43 | 8,642 | 0.0 |
| NEVADA | 41 | 12 | 0.3 | 38 | 52,784 | 0.0 |
| DELAWARE | 42 | 11 | 0.3 | 45 | 2,273 | 0.0 |
| IDAHO | 42 | 11 | 0.3 | 13 | 3,178,455 | 1.1 |
| HAWAII | 44 | 9 | 0.2 | 46 | 1,428 | 0.0 |
| MONTANA | 44 | 9 | 0.2 | 44 | 3,270 | 0.0 |
| OREGON | 44 | 9 | 0.2 | 34 | 133,021 | 0.0 |
| NORTH DAKOTA | 47 | 6 | 0.2 | 22 | 683,825 | 0.2 |
| VERMONT | 48 | 5 | 0.1 | 51 | 0 | 0.0 |
| WYOMING | 49 | 4 | 0.1 | 50 | 119 | 0.0 |
| SOUTH DAKOTA | 50 | 3 | 0.1 | 51 | 0 | 0.0 |
| DISTRICT OF COLUMBIA | 51 | 2 | 0.1 | 51 | 0 | 0.0 |
| GUAM | 51 | 2 | 0.1 | 51 | 0 | 0.0 |
| NEW HAMPSHIRE | 51 | 2 | 0.1 | 51 | 0 | 0.0 |
| TRUST TERRITORIES | 51 | 2 | 0.1 | 48 | 887 | 0.0 |
| VIRGIN ISLANDS | 51 | 2 | 0.1 | 49 | 219 | 0.0 |
| TOTAL | | 3,862 | 100.0 | | 294,437,307 | 100.0 |

¹ Quantity managed only by storage is excluded.

Note: Columns may not sum due to rounding.

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Exhibit 2.7 Fifty Largest RCRA Hazardous Waste Managers in the U.S., 1991

| RANK | EPA ID | NAME | CITY | TONS MANAGED ¹ |
|--------------|--------------|--|-------------------|------------------------------|
| 1 | MID000724724 | THE DOW CHEMICAL COMPANY | MIDLAND,MI | 30,165,227 |
| 2 | NJD002385730 | E.I. DUPONT-CHAMBERS WORKS | DEEPWATER,NJ | 29,457,126 |
| 3 | TXD008080533 | AMOCO OIL COMPANY REFINERY | TEXAS CITY,TX | 28,677,233 |
| 4 | LAD008080350 | CITGO PETROLEUM CORPORATION | LAKE CHARLES,LA | 13,546,246 |
| 5 | TXD067285973 | SHELL OIL COMPANY | DEER PARK,TX | 10,603,805 |
| 6 | ILD080012305 | SHELL OIL CO | ROXANA,IL | 9,449,079 |
| 7 | TXD050309012 | AMOCO CHEMICAL COMPANY - CHOCOLATE BAYOU | ALVIN,TX | 8,243,359 |
| 8 | TXD048210645 | PHILLIPS PETROLEUM SWEENEY COMPLEX | OLD OCEAN,TX | 7,653,408 |
| 9 | CAD009164021 | SHELL OIL CO/MARTINEZ MFG COMP | MARTINEZ,CA | 7,299,195 |
| 10 | WVD005005509 | RHONE-POULENC AG COMPANY | INSTITUTE,WV | 6,655,087 |
| 11 | MSD054179403 | CHEVRON | PASCAGOULA,MS | 6,586,654 |
| 12 | LAD041581422 | UNION CARBIDE CHEMICALS & PLASTICS COMP. | TAFT,LA | 6,512,298 |
| 13 | TXD007330202 | TEXAS EASTMAN DIVISION, EASTMAN CHEMICAL | LONGVIEW,TX | 5,439,874 |
| 14 | LAD056024391 | BP OIL COMPANY - ALLIANCE REFINERY | BELLE CHASSE,LA | 5,340,881 |
| 15 | TXD000836486 | ISK BIOTECH CORP./GREENS BAYOU PLANT | HOUSTON,TX | 5,265,451 |
| 16 | WAD069548154 | ARCO PRODUCTS CO | FERNDAL,WA | 5,110,162 |
| 17 | TXD008123317 | DUPONT DE NEMOURS & CO. | VICTORIA,TX | 4,052,584 |
| 18 | WAD009275082 | SHELL OIL COMPANY | ANACORTES,WA | 3,340,005 |
| 19 | TXD008092793 | DOW CHEMICAL U.S.A. | FREEPORT,TX | 3,232,841 |
| 20 | TXD051161990 | CHAMPLIN REFINING AND CHEMICALS, INC. | CORPUS CHRISTI,TX | 3,151,965 |
| 21 | TXD008079527 | STERLING CHEMICALS, INC. | TEXAS CITY,TX | 3,110,763 |
| 22 | TXD066349770 | TYLER PIPE INDUSTRIES, INC. | SWAN,TX | 2,927,104 |
| 23 | TXD058275769 | LYONDELL PETROCHEMICAL COMPANY | CHENNELVIEW,TX | 2,897,018 |
| 24 | MND006172969 | 3M COMPANY | COTTAGE GROVE,MN | 2,674,604 |
| 25 | MND006162820 | ASHLAND PETROLEUM COMPANY | ST. PAUL PARK,MN | 2,618,232 |
| 26 | PRD090074071 | PUERTO RICO SUN OIL CO. | YABUCOA,PR | 2,509,552 |
| 27 | TXD065096273 | ROHM AND HAAS TEXAS, INC. | DEER PARK,TX | 2,508,332 |
| 28 | ID4890008952 | U.S. DOE IDAHO NATIONAL ENGINEERING LABO | SCOVILLE,ID | 2,373,894 |
| 29 | TXD001700806 | MONSANTO COMPANY | ALVIN,TX | 2,358,379 |
| 30 | TXD083472266 | ARCO CHEMICAL COMPANY/CHANNELVIEW | CHANNELVIEW,TX | 1,957,889 |
| 31 | KSD087418695 | TOTAL PETROLEUM INC | ARKANSAS CITY,KS | 1,821,350 |
| 32 | LAD008175390 | AMERICAN CYANAMID | WAGGAMAN,LA | 1,722,482 |
| 33 | CAD041472986 | NATIONAL SEMICONDUCTOR CORP | SANTA CLARA,CA | 1,604,446 |
| 34 | TXD059685339 | MCKEE PLANTS/DIAMOND SHAMROCK | SUNRAY,TX | 1,536,794 |
| 35 | WAD009250366 | BP OIL COMPANY FERNDAL REFINERY | FERNDAL,WA | 1,520,400 |
| 36 | ILD005092572 | NALCO CHEMICAL CO | BEDFORD PARK,IL | 1,426,007 |
| 37 | KSD007482029 | VULCAN MATERIALS COMPANY | WICHITA,KS | 1,338,061 |
| 38 | TX6170022770 | LTV AEROSPACE & DEFENSE CO. | DALLAS,TX | 1,258,518 |
| 39 | TXD980626014 | REXENE PRODUCTS COMPANY | ODESSA,TX | 1,220,021 |
| 40 | TXD008079642 | DU PONT SABINE RIVER WORKS | ORANGE,TX | 1,219,373 |
| 41 | TXD008081101 | E.I. DU PONT DE NEMOURS & CO., INC. | NEDERLAND,TX | 1,192,495 |
| 42 | LAD008086506 | PPG INDUSTRIES, INC. | WESTLAKE,LA | 1,048,664 |
| 43 | TXD041515420 | SEADRIFT/UNION CARBIDE CHEM & PLASTICS | N. SEADRIFT,TX | 843,505 |
| 44 | OKD000829440 | ZINC CORPORATION OF AMERICA | BARTLESVILLE,OK | 792,988 |
| 45 | WVD004341491 | AMERICAN CYANAMID COMPANY | WILLOW ISLAND,WV | 759,970 |
| 46 | OHD042157644 | BP CHEMICALS INC. | LIMA,OH | 756,343 |
| 47 | TXD000751172 | B.P. CHEMICALS AMERICA, INC. | GREEN LAKE,TX | 744,036 |
| 48 | LAD981149750 | UNION TEXAS PRODUCTS CORP. | GEISMAR,LA | 729,853 |
| 49 | NDD006175467 | AMOCO OIL COMPANY-MANDAN REFINERY | MANDAN,ND | 683,544 |
| 50 | MSD096046792 | DUPONT DELISLE PLANT | PASS CHRISTIAN,MS | 675,947 |
| TOTAL | | | | 248,613,044 |

¹Quantity managed only by storage is excluded.

Note: Column may not sum due to rounding.

Exhibit 2.8 Quantity and Percentage of RCRA Hazardous Wastewater and Non-Wastewater Management in 1991

| MANAGEMENT TYPE | TONS MANAGED ¹ | PERCENTAGE |
|-----------------|------------------------------|--------------|
| Wastewater | 285,565,929 | 97.0 |
| Non-Wastewater | 8,871,379 | 3.0 |
| TOTAL | 294,437,307 | 100.0 |

¹Quantity managed only by storage is excluded.

Note: Columns may not sum due to rounding.

Exhibits 2.9(, 2.10, and 2.11\$ present the quantity of RCRA hazardous waste managed according to individual treatment categories. The majority (76.3%) of the national total was managed in aqueous treatment units. 132 million tons were managed in aqueous organic treatment units, 19 million tons in aqueous inorganic treatment units, and 74 million tons in both inorganic and organic aqueous treatment units. (The 97% total wastewater figure presented in Exhibit 2.8(includes wastewaters that were managed in ways other than aqueous treatment systems, including neutralization and underground injection).

Land disposal accounted for 8.6% of the management total. Nationwide, 23 million tons of hazardous waste were disposed in underground injection wells, 1.7 million tons were disposed in landfills, 240 thousand tons were managed in surface impoundments, and 52 thousand tons were managed by land application (land farming).

Recovery operations accounted for 2.2% of the national management total. Facilities reported that 3.6 million tons were managed in solvent recovery units, 1.4 million tons were managed in fuel blending units, 1 million tons were managed in metals recovery units, and 480 thousand tons were recovered by other methods such as acid regeneration, waste oil recovery, and non-solvent organic recovery.

Thermal treatment accounted for 1.1% of the national management total. A total of 1.9 million tons were incinerated, while facilities reused 1.4 million tons as fuel in boilers or industrial furnaces.

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Exhibit 2.9 Quantity of RCRA Hazardous Waste Managed, by Management Method, 1991

| MANAGEMENT METHOD | SYSTEM TYPE CODE | TONS MANAGED ¹ | PERCENTAGE OF QUANTITY ^{2,3} | NUMBER OF FACILITIES | PERCENTAGE OF FACILITIES ³ |
|------------------------------------|------------------|---------------------------|---------------------------------------|----------------------|---------------------------------------|
| METALS RECOVERY (FOR REUSE) | M011-M019 | 1,003,818 | 0.3 | 87 | 4.6 |
| SOLVENTS RECOVERY | M021-M029 | 3,663,567 | 1.2 | 283 | 15.0 |
| OTHER RECOVERY | M031-M039 | 478,331 | 0.2 | 74 | 3.9 |
| INCINERATION | M041-M049 | 1,867,641 | 0.6 | 192 | 10.2 |
| ENERGY RECOVERY (REUSE AS FUEL) | M051-M059 | 1,456,008 | 0.5 | 143 | 7.6 |
| FUEL BLENDING | M061 | 1,392,318 | 0.5 | 94 | 5.0 |
| AQUEOUS INORGANIC TREATMENT | M071-M079 | 19,255,576 | 6.5 | 211 | 11.2 |
| AQUEOUS ORGANIC TREATMENT | M081-M089 | 131,867,038 | 44.8 | 115 | 6.1 |
| AQUEOUS ORG & INORG TREATMENT | M091-M099 | 73,565,485 | 25.0 | 36 | 1.9 |
| SLUDGE TREATMENT | M101-M109 | 171,306 | 0.1 | 53 | 2.8 |
| STABILIZATION | M111-M119 | 1,155,818 | 0.4 | 58 | 3.1 |
| OTHER TREATMENT | M121-M129 | 31,975,553 | 10.9 | 338 | 17.9 |
| LAND TREATMENT / FARMING | M131 | 52,239 | 0.0 | 26 | 1.4 |
| LANDFILL | M132 | 1,696,634 | 0.6 | 52 | 2.8 |
| SURFACE IMPOUNDMENT | M133 | 240,307 | 0.1 | 9 | 0.5 |
| DEEPWELL / UNDERGROUND INJECTION | M134 | 23,317,692 | 7.9 | 47 | 2.5 |
| OTHER DISPOSAL | M137 | 1,277,976 | 0.4 | 65 | 3.4 |
| UNKNOWN SYSTEM DUE TO INVALID CODE | UNKNOWN-- | 1 | 0.0 | 2 | 0.1 |
| TOTAL | | 294,437,307 | 100.0 | 1,203 | 100.0 |

¹Quantity managed only by storage is excluded.

²Facilities with only storage units are excluded.

³Column may not sum because facilities may have multiple handling methods.

Note: Columns may not sum due to rounding.

Exhibit 2.10 Management Method, by Quantity of RCRA Hazardous Waste Managed, 1991

| MANAGEMENT METHOD | SYSTEM TYPE CODE | TONS MANAGED ¹ | PERCENTAGE OF QUANTITY | NUMBER OF FACILITIES ² | PERCENTAGE OF FACILITIES ³ |
|----------------------------------|------------------|---------------------------|------------------------|-----------------------------------|---------------------------------------|
| AQUEOUS ORGANIC TREATMENT | M081-M089 | 131,867,038 | 44.8 | 115 | 6.1 |
| AQUEOUS ORG. AND INORG. TRT | M091-M099 | 73,565,485 | 25.0 | 36 | 1.9 |
| OTHER TREATMENT | M121-M129 | 31,975,553 | 10.9 | 338 | 17.9 |
| DEEPWELL / UNDERGROUND INJECTION | M134 | 23,317,692 | 7.9 | 47 | 2.5 |
| AQUEOUS INORGANIC TREATMENT | M071-M079 | 19,255,576 | 6.5 | 211 | 11.2 |
| SOLVENTS RECOVERY | M021-M029 | 3,663,567 | 1.2 | 283 | 15.0 |
| INCINERATION | M041-M049 | 1,867,641 | 0.6 | 192 | 10.2 |
| LANDFILL | M132 | 1,696,634 | 0.6 | 52 | 2.8 |
| ENERGY RECOVERY (REUSE AS FUEL) | M051-M059 | 1,456,008 | 0.5 | 143 | 7.6 |
| FUEL BLENDING | M061 | 1,392,318 | 0.5 | 94 | 5.0 |
| OTHER DISPOSAL | M137 | 1,277,976 | 0.4 | 65 | 3.4 |
| STABILIZATION | M111-M119 | 1,155,818 | 0.4 | 58 | 3.1 |
| METALS RECOVERY (FOR REUSE) | M011-M019 | 1,003,818 | 0.3 | 87 | 4.6 |
| OTHER RECOVERY | M031-M039 | 478,331 | 0.2 | 74 | 3.9 |
| SURFACE IMPOUNDMENT | M133 | 240,307 | 0.1 | 9 | 0.5 |
| SLUDGE TREATMENT | M101-M109 | 171,306 | 0.1 | 53 | 2.8 |
| LAND TREATMENT / FARMING | M131 | 52,239 | 0.0 | 26 | 1.4 |
| UNKNOWN SYSTEM | UNKNOWN-- | 1 | 0.0 | 2 | 0.1 |
| TOTAL | | 294,437,307 | 100.0 | 1,203 | 100.0 |

¹Quantity managed only by storage is excluded.²Facilities with only storage units are excluded.³Column may not sum because facilities may have multiple handling methods.**Note:** Columns may not sum due to rounding.

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Exhibit 2.11 Management Method and Quantity of RCRA Hazardous Waste Managed, by Number of Facilities, 1991

| MANAGEMENT METHOD | SYSTEM TYPE CODE | TONS MANAGED ¹ | PERCENTAGE OF QUANTITY | NUMBER OF FACILITIES ² | PERCENTAGE OF FACILITIES ³ |
|----------------------------------|------------------|---------------------------|------------------------|-----------------------------------|---------------------------------------|
| OTHER TREATMENT | M121-M129 | 31,975,553 | 10.9 | 338 | 17.9 |
| SOLVENTS RECOVERY | M021-M029 | 3,663,567 | 1.2 | 283 | 15.0 |
| AQUEOUS INORGANIC TREATMENT | M071-M079 | 19,255,576 | 6.5 | 211 | 11.2 |
| INCINERATION | M041-M049 | 1,867,641 | 0.6 | 192 | 10.2 |
| ENERGY RECOVERY (REUSE AS FUEL) | M051-M059 | 1,456,008 | 0.5 | 143 | 7.6 |
| AQUEOUS ORGANIC TREATMENT | M081-M089 | 131,867,038 | 44.8 | 115 | 6.1 |
| FUEL BLENDING | M061 | 1,392,318 | 0.5 | 94 | 5.0 |
| METALS RECOVERY (FOR REUSE) | M011-M019 | 1,003,818 | 0.3 | 87 | 4.6 |
| OTHER RECOVERY | M031-M039 | 478,331 | 0.2 | 74 | 3.9 |
| OTHER DISPOSAL | M137 | 1,277,976 | 0.4 | 65 | 3.4 |
| STABILIZATION | M111-M119 | 1,155,818 | 0.4 | 58 | 3.1 |
| SLUDGE TREATMENT | M101-M109 | 171,306 | 0.1 | 53 | 2.8 |
| LANDFILL | M132 | 1,696,634 | 0.6 | 52 | 2.8 |
| DEEPWELL / UNDERGROUND INJECTION | M134 | 23,317,692 | 7.9 | 47 | 2.5 |
| AQUEOUS ORG. AND INORG. TRT. | M091-M099 | 73,565,485 | 25.0 | 36 | 1.9 |
| LAND TREATMENT / FARMING | M131 | 52,239 | 0.0 | 26 | 1.4 |
| SURFACE IMPOUNDMENT | M133 | 240,307 | 0.1 | 9 | 0.5 |
| UNKNOWN SYSTEM | UNKNOWN-- | 1 | 0.0 | 2 | 0.1 |
| TOTAL | | 294,437,307 | 100.0 | 1,203 | 100.0 |

¹Quantity managed only by storage is excluded.

²Facilities with only storage units are excluded.

³Column may not sum because facilities may have multiple handling methods.

Note: Columns may not sum due to rounding.

Exhibits 2.12&, 2.13&, and 2.14) present the quantity of RCRA hazardous waste managed in various treatment and disposal units, limited to waste received from off site in 1991. Unlike wastes managed on site, the majority of which were managed in aqueous treatment systems, the majority of wastes that were managed off site were managed by recovery, fuel blending, stabilization, and landfilling. Eight million tons of waste (3% of the national total) was managed at a different facility than the generating facility. Given that the amount of non-wastewater managed was also 3% of the national total, these exhibits suggest that non-wastewaters tend to be shipped to commercial facilities or other facilities, while wastewaters are managed on site.

Recovery operations accounted for the largest portion (31%) of the national management total of waste received from off site. 1 million tons were managed in fuel blending units, 693 thousand tons were managed in metals recovery units, facilities reported that 463 thousand tons were managed in solvent recovery units, and 199 thousand tons were recovered by other methods such as acid regeneration, waste oil recovery, and non-solvent organic recovery.

Land disposal accounts for 21.6% of the total amount received from off site and managed on site. Nationwide, 1.2 million tons of hazardous wastes were disposed in landfills, 426 thousand tons were disposed in underground injection wells, 8 thousand tons were managed in surface impoundments, and 600 tons were managed by land application (land farming).

Aqueous treatment accounts for 13.9% of the total amount received from off site and managed on site. 299 thousand tons were managed in aqueous organic treatment units, 475 thousand tons in aqueous inorganic treatment units, and 294 thousand tons in both inorganic and organic aqueous treatment units.

Thermal treatment accounts for 12.8% of the received/managed total. Facilities reused 534 thousand tons as fuel in boilers or industrial furnaces and 452 thousand tons were incinerated.

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A comparison between the management profile for all wastes and those received from off site shows that wastes managed off site are managed differently. Most wastes were managed by aqueous treatment. Wastes that were received from off site were managed by recovery, fuel blending, stabilization, or landfilling.

Exhibit 2.12 **Quantity of RCRA Hazardous Waste Managed, by Management Method, Limited to Waste Received from Off Site, 1991**

| MANAGEMENT METHOD | SYSTEM TYPE CODE | TONS MANAGED ¹ | PERCENTAGE OF QUANTITY | NUMBER OF FACILITIES ^{2,3} | PERCENTAGE OF FACILITIES ³ |
|------------------------------------|------------------|---------------------------|------------------------|-------------------------------------|---------------------------------------|
| METALS RECOVERY (FOR REUSE) | M011-M019 | 692,778 | 9.0 | 42 | 6.1 |
| SOLVENTS RECOVERY | M021-M029 | 463,447 | 6.0 | 95 | 13.7 |
| OTHER RECOVERY | M031-M039 | 199,200 | 2.6 | 25 | 3.6 |
| INCINERATION | M041-M049 | 452,235 | 5.9 | 71 | 10.2 |
| ENERGY RECOVERY (REUSE AS FUEL) | M051-M059 | 533,868 | 6.9 | 46 | 6.6 |
| FUEL BLENDING | M061 | 1,033,329 | 13.4 | 83 | 12.0 |
| AQUEOUS INORGANIC TREATMENT | M071-M079 | 475,239 | 6.2 | 57 | 8.2 |
| AQUEOUS ORGANIC TREATMENT | M081-M089 | 298,511 | 3.9 | 37 | 5.3 |
| AQUEOUS ORG & INORG TREATMENT | M091-M099 | 293,922 | 3.8 | 21 | 3.0 |
| SLUDGE TREATMENT | M101-M109 | 6,550 | 0.1 | 20 | 2.9 |
| STABILIZATION | M111-M119 | 758,611 | 9.9 | 37 | 5.3 |
| OTHER TREATMENT | M121-M129 | 783,440 | 10.2 | 94 | 13.5 |
| LAND TREATMENT / FARMING | M131 | 642 | 0.0 | 3 | 0.4 |
| LANDFILL | M132 | 1,228,710 | 16.0 | 28 | 4.0 |
| SURFACE IMPOUNDMENT | M133 | 8,477 | 0.1 | 1 | 0.1 |
| DEEPWELL / UNDERGROUND INJECTION | M134 | 425,720 | 5.5 | 14 | 2.0 |
| OTHER DISPOSAL | M137 | 35,837 | 0.5 | 18 | 2.6 |
| UNKNOWN SYSTEM DUE TO INVALID CODE | UNKNOWN-- | 1 | 0.0 | 2 | 0.3 |
| TOTAL | | 7,690,516 | 100.0 | 427 | 100.0 |

¹Quantity managed only by storage is excluded.

²Facilities with only storage units are excluded.

³Column may not sum because facilities may have multiple handling methods.

Note: Columns may not sum due to rounding.

Exhibit 2.13 Management Method, by Quantity of RCRA Hazardous Waste Managed, Limited to Waste Received from Off Site, 1991

| MANAGEMENT METHOD | SYSTEM TYPE CODE | TONS MANAGED ¹ | PERCENTAGE OF QUANTITY | NUMBER OF FACILITIES ^{2,3} | PERCENTAGE OF FACILITIES ³ |
|------------------------------------|------------------|---------------------------|------------------------|-------------------------------------|---------------------------------------|
| LANDFILL | M132 | 1,228,710 | 16.0 | 28 | 4.0 |
| FUEL BLENDING | M061 | 1,033,329 | 13.4 | 83 | 12.0 |
| OTHER TREATMENT | M121-M129 | 783,440 | 10.2 | 94 | 13.5 |
| STABILIZATION | M111-M119 | 758,611 | 9.9 | 37 | 5.3 |
| METALS RECOVERY (FOR REUSE) | M011-M019 | 692,778 | 9.0 | 42 | 6.1 |
| ENERGY RECOVERY (REUSE AS FUEL) | M051-M059 | 533,868 | 6.9 | 46 | 6.6 |
| AQUEOUS INORGANIC TREATMENT | M071-M079 | 475,239 | 6.2 | 57 | 8.2 |
| SOLVENTS RECOVERY | M021-M029 | 463,447 | 6.0 | 95 | 13.7 |
| INCINERATION | M041-M049 | 452,235 | 5.9 | 71 | 10.2 |
| DEEPWELL / UNDERGROUND INJECTION | M134 | 425,720 | 5.5 | 14 | 2.0 |
| AQUEOUS ORGANIC TREATMENT | M081-M089 | 298,511 | 3.9 | 37 | 5.3 |
| AQUEOUS ORG & INORG TREATMENT | M091-M099 | 293,922 | 3.8 | 21 | 3.0 |
| OTHER RECOVERY | M031-M039 | 199,200 | 2.6 | 25 | 3.6 |
| OTHER DISPOSAL | M137 | 35,837 | 0.5 | 18 | 2.6 |
| SURFACE IMPOUNDMENT | M133 | 8,477 | 0.1 | 1 | 0.1 |
| SLUDGE TREATMENT | M101-M109 | 6,550 | 0.1 | 20 | 2.9 |
| LAND TREATMENT / FARMING | M131 | 642 | 0.0 | 3 | 0.4 |
| UNKNOWN SYSTEM DUE TO INVALID CODE | UNKNOWN-- | 1 | 0.0 | 2 | 0.3 |
| TOTAL | | 7,690,516 | 100.0 | 427 | 100.0 |

¹Quantity managed only by storage is excluded.

²Facilities with only storage units are excluded.

³Column may not sum because facilities may have multiple handling methods.

Note: Columns may not sum due to rounding.

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Exhibit 2.14 Management Method and Quantity of RCRA Hazardous Waste Managed, by Number of Facilities, Limited to Waste Received from Off Site, 1991

| MANAGEMENT METHOD | SYSTEM TYPE CODE | TONS MANAGED ¹ | PERCENTAGE OF QUANTITY | NUMBER OF FACILITIES ^{2,3} | PERCENTAGE OF FACILITIES ³ |
|--------------------------------------|------------------|---------------------------|------------------------|-------------------------------------|---------------------------------------|
| SOLVENTS RECOVERY | M021-M029 | 463,447 | 6.0 | 95 | 13.7 |
| OTHER TREATMENT | M121-M129 | 783,440 | 10.2 | 94 | 13.5 |
| FUEL BLENDING | M061 | 1,033,329 | 13.4 | 83 | 12.0 |
| INCINERATION | M041-M049 | 452,235 | 5.9 | 71 | 10.2 |
| AQUEOUS INORGANIC TREATMENT | M071-M079 | 475,239 | 6.2 | 57 | 8.2 |
| ENERGY RECOVERY (REUSE AS FUEL) | M051-M059 | 533,868 | 6.9 | 46 | 6.6 |
| METALS RECOVERY (FOR REUSE) | M011-M019 | 692,778 | 9.0 | 42 | 6.1 |
| AQUEOUS ORGANIC TREATMENT | M081-M089 | 298,511 | 3.9 | 37 | 5.3 |
| STABILIZATION | M111-M119 | 758,611 | 9.9 | 37 | 5.3 |
| LANDFILL | M132 | 1,228,710 | 16.0 | 28 | 4.0 |
| OTHER RECOVERY | M031-M039 | 199,200 | 2.6 | 25 | 3.6 |
| AQUEOUS ORG & INORG TREATMENT | M091-M099 | 293,922 | 3.8 | 21 | 3.0 |
| SLUDGE TREATMENT | M101-M109 | 6,550 | 0.1 | 20 | 2.9 |
| OTHER DISPOSAL SPECIFIED IN COMMENTS | M137 | 35,837 | 0.5 | 18 | 2.6 |
| DEEPWELL / UNDERGROUND INJECTION | M134 | 425,720 | 5.5 | 14 | 2.0 |
| LAND TREATMENT / FARMING | M131 | 642 | 0.0 | 3 | 0.4 |
| UNKNOWN SYSTEM DUE TO INVALID CODE | UNKNOWN-- | 1 | 0.0 | 2 | 0.3 |
| SURFACE IMPOUNDMENT | M133 | 8,477 | 0.1 | 1 | 0.1 |
| TOTAL | | 7,690,516 | 100.0 | 427 | 100.0 |

¹Quantity managed only by storage is excluded.

²Facilities with only storage units are excluded.

³Column may not sum because facilities may have multiple handling methods.

Note: Columns may not sum due to rounding.

3.0 SHIPMENTS AND RECEIPTS

In 1991, 23,560 shippers¹ reported shipping 12.7 million tons of waste. Exhibits 3.1', 3.2(, and 3.3(present the quantity of waste shipped and the number of shippers in each EPA region. Of the regions, Region 6 reported shipping the largest amount of waste (2.7 million tons), while Region 5 reported the largest number of shippers (5,104). Region 10 reported shipping the least amount of waste (244 thousand tons), while Region 8 reported the smallest number of shippers (359).

Exhibits 3.4(, 3.5', and 3.6' present the quantity of waste received and the number of TSD facilities that received waste in each of the regions. Overall, 794 TSD facilities reported receiving 8.2 million tons of waste in 1991. Region 5 reported both the largest quantity of receipts (2.4 million tons) and the largest number of receivers (184). Region 4 was second in both total receipts (880 thousand tons) and number of receivers (67).

¹The term "shipment" is intended to refer to the physical transfer of waste from one facility to another. In some cases, however, shipments occur between facilities that neighbor each other and are under the same corporate name. In these instances, EPA may have assigned unique EPA ID numbers to separate industrial sites within the same plant. The resulting shipments may merely be movement of wastes from one portion of the plant to another.

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Exhibit 3.1 **Number and Percentage of RCRA Hazardous Waste Shippers and Total RCRA Hazardous Waste Quantity Shipped, by EPA Region, 1991**

| EPA REGION | HAZARDOUS WASTE QUANTITY | | SHIPPERS | |
|--------------|--------------------------|--------------|---------------|--------------|
| | TONS SHIPPED | PERCENTAGE | NUMBER | PERCENTAGE |
| 1 | 2,157,298 | 17.0 | 1,559 | 6.6 |
| 2 | 1,369,716 | 10.8 | 4,909 | 20.8 |
| 3 | 842,069 | 6.7 | 2,183 | 9.3 |
| 4 | 1,251,835 | 9.9 | 3,145 | 13.3 |
| 5 | 2,668,277 | 21.1 | 5,104 | 21.7 |
| 6 | 2,718,814 | 21.5 | 1,805 | 7.7 |
| 7 | 338,842 | 2.7 | 796 | 3.4 |
| 8 | 444,523 | 3.5 | 359 | 1.5 |
| 9 | 617,538 | 4.9 | 2,536 | 10.8 |
| 10 | 244,074 | 1.9 | 1,164 | 4.9 |
| TOTAL | 12,652,985 | 100.0 | 23,560 | 100.0 |

Exhibit 3.2 **Number and Percentage of RCRA Hazardous Waste Shippers and Quantity of Waste Shipped in Each Region, by the Total Quantity of Waste Shipped, 1991**

| EPA REGION | HAZARDOUS WASTE QUANTITY | | SHIPPERS | |
|--------------|--------------------------|--------------|---------------|--------------|
| | TONS SHIPPED | PERCENTAGE | NUMBER | PERCENTAGE |
| 6 | 2,718,814 | 21.5 | 1,805 | 7.7 |
| 5 | 2,668,277 | 21.1 | 5,104 | 21.7 |
| 1 | 2,157,298 | 17.0 | 1,559 | 6.6 |
| 2 | 1,369,716 | 10.8 | 4,909 | 20.8 |
| 4 | 1,251,835 | 9.9 | 3,145 | 13.3 |
| 3 | 842,069 | 6.7 | 2,183 | 9.3 |
| 9 | 617,538 | 4.9 | 2,536 | 10.8 |
| 8 | 444,523 | 3.5 | 359 | 1.5 |
| 7 | 338,842 | 2.7 | 796 | 3.4 |
| 10 | 244,074 | 1.9 | 1,164 | 4.9 |
| TOTAL | 12,652,985 | 100.0 | 23,560 | 100.0 |

Note: Columns for these two exhibits may not sum due to rounding.

Exhibit 3.3 Number and Percentage of RCRA Hazardous Waste Shippers and Quantity Shipped in Each Region, by Highest Number of Shippers, 1991

| EPA REGION | SHIPPERS | | HAZARDOUS WASTE QUANTITY | |
|--------------|---------------|--------------|--------------------------|--------------|
| | NUMBER | PERCENTAGE | TONS SHIPPED | PERCENT AGE |
| 5 | 5,104 | 21.7 | 2,668,277 | 21.1 |
| 2 | 4,909 | 20.8 | 1,369,716 | 10.8 |
| 4 | 3,145 | 13.3 | 1,251,835 | 9.9 |
| 9 | 2,536 | 10.8 | 617,538 | 4.9 |
| 3 | 2,183 | 9.3 | 842,069 | 6.7 |
| 6 | 1,805 | 7.7 | 2,718,814 | 21.5 |
| 1 | 1,559 | 6.6 | 2,157,298 | 17.0 |
| 10 | 1,164 | 4.9 | 244,074 | 1.9 |
| 7 | 796 | 3.4 | 338,842 | 2.7 |
| 8 | 359 | 1.5 | 444,523 | 3.5 |
| TOTAL | 23,560 | 100.0 | 12,652,985 | 100.0 |

Exhibit 3.4 Number and Percentage of RCRA Hazardous Waste Receivers and Quantity Received, by EPA Region, 1991

| EPA REGION | HAZARDOUS WASTE QUANTITY | | RECEIVING FACILITIES | |
|--------------|--------------------------|--------------|----------------------|--------------|
| | TONS RECEIVED | PERCENTAGE | NUMBER | PERCENTAGE |
| 1 | 110,170 | 1.3 | 37 | 4.7 |
| 2 | 884,113 | 10.8 | 67 | 8.4 |
| 3 | 597,389 | 7.3 | 68 | 8.6 |
| 4 | 1,216,485 | 14.9 | 131 | 16.5 |
| 5 | 2,442,585 | 29.8 | 184 | 23.2 |
| 6 | 958,301 | 11.7 | 106 | 13.4 |
| 7 | 476,778 | 5.8 | 54 | 6.8 |
| 8 | 87,749 | 1.1 | 28 | 3.5 |
| 9 | 1,183,623 | 14.5 | 81 | 10.2 |
| 10 | 229,757 | 2.8 | 38 | 4.8 |
| TOTAL | 8,186,950 | 100.0 | 794 | 100.0 |

Note: Columns for these two exhibits may not sum due to rounding.

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Exhibit 3.5 Number and Percentage of RCRA Hazardous Waste Receivers and Quantity Received in Each Region, by the Quantity of RCRA Hazardous Waste Received, 1991

| EPA REGION | HAZARDOUS WASTE QUANTITY | | RECEIVING FACILITIES | |
|--------------|--------------------------|--------------|----------------------|--------------|
| | TONS RECEIVED | PERCENTAGE | NUMBER | PERCENTAGE |
| 5 | 2,442,585 | 29.8 | 184 | 23.2 |
| 4 | 1,216,485 | 14.9 | 131 | 16.5 |
| 9 | 1,183,623 | 14.5 | 81 | 10.2 |
| 6 | 958,301 | 11.7 | 106 | 13.4 |
| 2 | 884,113 | 10.8 | 67 | 8.4 |
| 3 | 597,389 | 7.3 | 68 | 8.6 |
| 7 | 476,778 | 5.8 | 54 | 6.8 |
| 10 | 229,757 | 2.8 | 38 | 4.8 |
| 1 | 110,170 | 1.3 | 37 | 4.7 |
| 8 | 87,749 | 1.1 | 28 | 3.5 |
| TOTAL | 8,186,950 | 100.0 | 794 | 100.0 |

Exhibit 3.6 Number and Percentage of RCRA Hazardous Waste Receivers and Quantity Received in Each Region, by the Number of Receiving Facilities, 1991

| EPA REGION | RECEIVING FACILITIES | | HAZARDOUS WASTE QUANTITY | |
|--------------|----------------------|--------------|--------------------------|--------------|
| | NUMBER | PERCENTAGE | TONS RECEIVED | PERCENTAGE |
| 5 | 184 | 23.2 | 2,442,585 | 29.8 |
| 4 | 131 | 16.5 | 1,216,485 | 14.9 |
| 6 | 106 | 13.4 | 958,301 | 11.7 |
| 9 | 81 | 10.2 | 1,183,623 | 14.5 |
| 3 | 68 | 8.6 | 597,389 | 7.3 |
| 2 | 67 | 8.4 | 884,113 | 10.8 |
| 7 | 54 | 6.8 | 476,778 | 5.8 |
| 10 | 38 | 4.8 | 229,757 | 2.8 |
| 1 | 37 | 4.7 | 110,170 | 1.3 |
| 8 | 28 | 3.5 | 87,749 | 1.1 |
| TOTAL | 794 | 100.0 | 8,186,950 | 100.0 |

Note: Columns for these two exhibits may not sum due to rounding.

Exhibits 3.7!, 3.8 , and 3.9 present the quantity of waste shipped and the number of shippers in each state. Texas reported shipping the largest quantity of waste (2.2 million tons), followed by Connecticut (1.8 million tons) and Michigan (750 thousands tons). New York reported the largest number of shippers (2,638), followed by New Jersey (2,172) and California (2,172).

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Exhibit 3.7 Quantity of RCRA Hazardous Waste Shipped, and Number of Hazardous Waste Shippers, by State, 1991

| STATE | RCRA HAZARDOUS WASTE QUANTITY | | | NUMBER OF SHIPPERS | | |
|----------------------|-------------------------------|-------------------|--------------|--------------------|---------------|--------------|
| | RANK | TONS SHIPPED | PERCENTAGE | RANK | NUMBER | PERCENTAGE |
| ALABAMA | 14 | 290,979 | 2.3 | 23 | 280 | 1.2 |
| ALASKA | 49 | 2,761 | 0.0 | 45 | 60 | 0.3 |
| ARIZONA | 34 | 40,773 | 0.3 | 26 | 246 | 1.0 |
| ARKANSAS | 22 | 120,427 | 1.0 | 34 | 149 | 0.6 |
| CALIFORNIA | 9 | 560,577 | 4.4 | 2 | 2,172 | 9.2 |
| COLORADO | 33 | 48,906 | 0.4 | 35 | 146 | 0.6 |
| CONNECTICUT | 2 | 1,814,552 | 14.3 | 15 | 485 | 2.1 |
| DELAWARE | 38 | 18,873 | 0.1 | 44 | 62 | 0.3 |
| DISTRICT OF COLUMBIA | 53 | 934 | 0.0 | 52 | 12 | 0.1 |
| FLORIDA | 24 | 92,997 | 0.7 | 18 | 410 | 1.7 |
| GEORGIA | 23 | 105,899 | 0.8 | 19 | 398 | 1.7 |
| GUAM | 54 | 408 | 0.0 | 53 | 9 | 0.0 |
| HAWAII | 47 | 3,561 | 0.0 | 48 | 35 | 0.1 |
| IDAHO | 46 | 6,108 | 0.0 | 47 | 40 | 0.2 |
| ILLINOIS | 10 | 490,275 | 3.9 | 6 | 1,249 | 5.3 |
| INDIANA | 5 | 617,953 | 4.9 | 10 | 673 | 2.9 |
| IOWA | 37 | 26,306 | 0.2 | 33 | 157 | 0.7 |
| KANSAS | 19 | 160,303 | 1.3 | 30 | 172 | 0.7 |
| KENTUCKY | 17 | 162,947 | 1.3 | 17 | 446 | 1.9 |
| LOUISIANA | 13 | 291,011 | 2.3 | 22 | 308 | 1.3 |
| MAINE | 42 | 11,987 | 0.1 | 28 | 184 | 0.8 |
| MARYLAND | 28 | 82,389 | 0.7 | 16 | 462 | 2.0 |
| MASSACHUSETTS | 15 | 266,098 | 2.1 | 13 | 554 | 2.4 |
| MICHIGAN | 3 | 746,418 | 5.9 | 9 | 770 | 3.3 |
| MINNESOTA | 32 | 62,048 | 0.5 | 24 | 272 | 1.2 |
| MISSISSIPPI | 36 | 36,251 | 0.3 | 27 | 197 | 0.8 |
| MISSOURI | 21 | 136,674 | 1.1 | 20 | 387 | 1.6 |
| MONTANA | 45 | 8,733 | 0.1 | 46 | 51 | 0.2 |
| NEBRASKA | 40 | 15,559 | 0.1 | 40 | 80 | 0.3 |
| NEVADA | 44 | 10,197 | 0.1 | 41 | 71 | 0.3 |
| NEW HAMPSHIRE | 43 | 11,191 | 0.1 | 31 | 167 | 0.7 |
| NEW JERSEY | 7 | 607,963 | 4.8 | 2 | 2,172 | 9.2 |
| NEW MEXICO | 41 | 12,617 | 0.1 | 42 | 68 | 0.3 |
| NEW YORK | 4 | 672,526 | 5.3 | 1 | 2,638 | 11.2 |
| NORTH CAROLINA | 26 | 87,500 | 0.7 | 12 | 584 | 2.5 |
| NORTH DAKOTA | 48 | 3,454 | 0.0 | 51 | 16 | 0.1 |
| OHIO | 6 | 609,787 | 4.8 | 4 | 1,539 | 6.5 |
| OKLAHOMA | 27 | 85,164 | 0.7 | 32 | 159 | 0.7 |
| OREGON | 29 | 69,973 | 0.6 | 29 | 179 | 0.8 |
| PENNSYLVANIA | 8 | 606,682 | 4.8 | 5 | 1,263 | 5.4 |
| PUERTO RICO | 25 | 88,907 | 0.7 | 39 | 98 | 0.4 |
| RHODE ISLAND | 39 | 15,772 | 0.1 | 37 | 105 | 0.4 |
| SOUTH CAROLINA | 12 | 312,552 | 2.5 | 21 | 336 | 1.4 |
| SOUTH DAKOTA | 52 | 1,272 | 0.0 | 50 | 20 | 0.1 |
| TENNESSEE | 18 | 162,712 | 1.3 | 14 | 494 | 2.1 |
| TEXAS | 1 | 2,209,595 | 17.5 | 7 | 1,121 | 4.8 |
| TRUST TERRITORIES | 50 | 2,022 | 0.0 | 54 | 3 | 0.0 |
| UTAH | 11 | 380,517 | 3.0 | 38 | 101 | 0.4 |
| VERMONT | 35 | 37,697 | 0.3 | 43 | 64 | 0.3 |
| VIRGIN ISLANDS | 55 | 321 | 0.0 | 55 | 1 | 0.0 |
| VIRGINIA | 30 | 69,444 | 0.5 | 25 | 266 | 1.1 |
| WASHINGTON | 16 | 165,232 | 1.3 | 8 | 885 | 3.8 |
| WEST VIRGINIA | 31 | 63,747 | 0.5 | 36 | 118 | 0.5 |
| WISCONSIN | 20 | 141,796 | 1.1 | 11 | 601 | 2.6 |
| WYOMING | 51 | 1,642 | 0.0 | 49 | 25 | 0.1 |
| TOTAL | | 12,652,985 | 100.0 | | 23,560 | 100.0 |

Note: Columns may not sum due to rounding.

Exhibit 3.8 Rank Ordering of States Based on Quantity of RCRA Hazardous Waste Shipped, and Number of Hazardous Waste Shippers, 1991

| STATE | RCRA HAZARDOUS WASTE QUANTITY | | | NUMBER OF SHIPPERS | | |
|----------------------|-------------------------------|-------------------|--------------|--------------------|---------------|--------------|
| | RANK | TONS SHIPPED | PERCENTAGE | RANK | NUMBER | PERCENTAGE |
| TEXAS | 1 | 2,209,595 | 17.5 | 7 | 1,121 | 4.8 |
| CONNECTICUT | 2 | 1,814,552 | 14.3 | 15 | 485 | 2.1 |
| MICHIGAN | 3 | 746,418 | 5.9 | 9 | 770 | 3.3 |
| NEW YORK | 4 | 672,526 | 5.3 | 1 | 2,638 | 11.2 |
| INDIANA | 5 | 617,953 | 4.9 | 10 | 673 | 2.9 |
| OHIO | 6 | 609,787 | 4.8 | 4 | 1,539 | 6.5 |
| NEW JERSEY | 7 | 607,963 | 4.8 | 2 | 2,172 | 9.2 |
| PENNSYLVANIA | 8 | 606,682 | 4.8 | 5 | 1,263 | 5.4 |
| CALIFORNIA | 9 | 560,577 | 4.4 | 2 | 2,172 | 9.2 |
| ILLINOIS | 10 | 490,275 | 3.9 | 6 | 1,249 | 5.3 |
| UTAH | 11 | 380,517 | 3.0 | 38 | 101 | 0.4 |
| SOUTH CAROLINA | 12 | 312,552 | 2.5 | 21 | 336 | 1.4 |
| LOUISIANA | 13 | 291,011 | 2.3 | 22 | 308 | 1.3 |
| ALABAMA | 14 | 290,979 | 2.3 | 23 | 280 | 1.2 |
| MASSACHUSETTS | 15 | 266,098 | 2.1 | 13 | 554 | 2.4 |
| WASHINGTON | 16 | 165,232 | 1.3 | 8 | 885 | 3.8 |
| KENTUCKY | 17 | 162,947 | 1.3 | 17 | 446 | 1.9 |
| TENNESSEE | 18 | 162,712 | 1.3 | 14 | 494 | 2.1 |
| KANSAS | 19 | 160,303 | 1.3 | 30 | 172 | 0.7 |
| WISCONSIN | 20 | 141,796 | 1.1 | 11 | 601 | 2.6 |
| MISSOURI | 21 | 136,674 | 1.1 | 20 | 387 | 1.6 |
| ARKANSAS | 22 | 120,427 | 1.0 | 34 | 149 | 0.6 |
| GEORGIA | 23 | 105,899 | 0.8 | 19 | 398 | 1.7 |
| FLORIDA | 24 | 92,997 | 0.7 | 18 | 410 | 1.7 |
| PUERTO RICO | 25 | 88,907 | 0.7 | 39 | 98 | 0.4 |
| NORTH CAROLINA | 26 | 87,500 | 0.7 | 12 | 584 | 2.5 |
| OKLAHOMA | 27 | 85,164 | 0.7 | 32 | 159 | 0.7 |
| MARYLAND | 28 | 82,389 | 0.7 | 16 | 462 | 2.0 |
| OREGON | 29 | 69,973 | 0.6 | 29 | 179 | 0.8 |
| VIRGINIA | 30 | 69,444 | 0.5 | 25 | 266 | 1.1 |
| WEST VIRGINIA | 31 | 63,747 | 0.5 | 36 | 118 | 0.5 |
| MINNESOTA | 32 | 62,048 | 0.5 | 24 | 272 | 1.2 |
| COLORADO | 33 | 48,906 | 0.4 | 35 | 146 | 0.6 |
| ARIZONA | 34 | 40,773 | 0.3 | 26 | 246 | 1.0 |
| VERMONT | 35 | 37,697 | 0.3 | 43 | 64 | 0.3 |
| MISSISSIPPI | 36 | 36,251 | 0.3 | 27 | 197 | 0.8 |
| IOWA | 37 | 26,306 | 0.2 | 33 | 157 | 0.7 |
| DELAWARE | 38 | 18,873 | 0.1 | 44 | 62 | 0.3 |
| RHODE ISLAND | 39 | 15,772 | 0.1 | 37 | 105 | 0.4 |
| NEBRASKA | 40 | 15,559 | 0.1 | 40 | 80 | 0.3 |
| NEW MEXICO | 41 | 12,617 | 0.1 | 42 | 68 | 0.3 |
| MAINE | 42 | 11,987 | 0.1 | 28 | 184 | 0.8 |
| NEW HAMPSHIRE | 43 | 11,191 | 0.1 | 31 | 167 | 0.7 |
| NEVADA | 44 | 10,197 | 0.1 | 41 | 71 | 0.3 |
| MONTANA | 45 | 8,733 | 0.1 | 46 | 51 | 0.2 |
| IDAHO | 46 | 6,108 | 0.0 | 47 | 40 | 0.2 |
| HAWAII | 47 | 3,561 | 0.0 | 48 | 35 | 0.1 |
| NORTH DAKOTA | 48 | 3,454 | 0.0 | 51 | 16 | 0.1 |
| ALASKA | 49 | 2,761 | 0.0 | 45 | 60 | 0.3 |
| TRUST TERRITORIES | 50 | 2,022 | 0.0 | 54 | 3 | 0.0 |
| WYOMING | 51 | 1,642 | 0.0 | 49 | 25 | 0.1 |
| SOUTH DAKOTA | 52 | 1,272 | 0.0 | 50 | 20 | 0.1 |
| DISTRICT OF COLUMBIA | 53 | 934 | 0.0 | 52 | 12 | 0.1 |
| GUAM | 54 | 408 | 0.0 | 53 | 9 | 0.0 |
| VIRGIN ISLANDS | 55 | 321 | 0.0 | 55 | 1 | 0.0 |
| TOTAL | | 12,652,985 | 100.0 | | 23,560 | 100.0 |

Note: Columns may not sum due to rounding.

National Biennial RCRA Hazardous Waste Report: Based on 1991 Data

Exhibit 3.9 Rank Ordering of States Based on Number of Hazardous Waste Shippers, and Quantity of RCRA Hazardous Waste Shipped, 1991

| STATE | NUMBER OF SHIPPERS | | | RCRA HAZARDOUS WASTE QUANTITY | | |
|----------------------|--------------------|---------------|--------------|-------------------------------|-------------------|--------------|
| | RANK | NUMBER | PERCENTAGE | RANK | TONS SHIPPED | PERCENTAGE |
| NEW YORK | 1 | 2,638 | 11.2 | 4 | 672,526 | 5.3 |
| NEW JERSEY | 2 | 2,172 | 9.2 | 7 | 607,963 | 4.8 |
| CALIFORNIA | 2 | 2,172 | 9.2 | 9 | 560,577 | 4.4 |
| OHIO | 4 | 1,539 | 6.5 | 6 | 609,787 | 4.8 |
| PENNSYLVANIA | 5 | 1,263 | 5.4 | 8 | 606,682 | 4.8 |
| ILLINOIS | 6 | 1,249 | 5.3 | 10 | 490,275 | 3.9 |
| TEXAS | 7 | 1,121 | 4.8 | 1 | 2,209,595 | 17.5 |
| WASHINGTON | 8 | 885 | 3.8 | 16 | 165,232 | 1.3 |
| MICHIGAN | 9 | 770 | 3.3 | 3 | 746,418 | 5.9 |
| INDIANA | 10 | 673 | 2.9 | 5 | 617,953 | 4.9 |
| WISCONSIN | 11 | 601 | 2.6 | 20 | 141,796 | 1.1 |
| NORTH CAROLINA | 12 | 584 | 2.5 | 26 | 87,500 | 0.7 |
| MASSACHUSETTS | 13 | 554 | 2.4 | 15 | 266,098 | 2.1 |
| TENNESSEE | 14 | 494 | 2.1 | 18 | 162,712 | 1.3 |
| CONNECTICUT | 15 | 485 | 2.1 | 2 | 1,814,552 | 14.3 |
| MARYLAND | 16 | 462 | 2.0 | 28 | 82,389 | 0.7 |
| KENTUCKY | 17 | 446 | 1.9 | 17 | 162,947 | 1.3 |
| FLORIDA | 18 | 410 | 1.7 | 24 | 92,997 | 0.7 |
| GEORGIA | 19 | 398 | 1.7 | 23 | 105,899 | 0.8 |
| MISSOURI | 20 | 387 | 1.6 | 21 | 136,674 | 1.1 |
| SOUTH CAROLINA | 21 | 336 | 1.4 | 12 | 312,552 | 2.5 |
| LOUISIANA | 22 | 308 | 1.3 | 13 | 291,011 | 2.3 |
| ALABAMA | 23 | 280 | 1.2 | 14 | 290,979 | 2.3 |
| MINNESOTA | 24 | 272 | 1.2 | 32 | 62,048 | 0.5 |
| VIRGINIA | 25 | 266 | 1.1 | 30 | 69,444 | 0.5 |
| ARIZONA | 26 | 246 | 1.0 | 34 | 40,773 | 0.3 |
| MISSISSIPPI | 27 | 197 | 0.8 | 36 | 36,251 | 0.3 |
| MAINE | 28 | 184 | 0.8 | 42 | 11,987 | 0.1 |
| OREGON | 29 | 179 | 0.8 | 29 | 69,973 | 0.6 |
| KANSAS | 30 | 172 | 0.7 | 19 | 160,303 | 1.3 |
| NEW HAMPSHIRE | 31 | 167 | 0.7 | 43 | 11,191 | 0.1 |
| OKLAHOMA | 32 | 159 | 0.7 | 27 | 85,164 | 0.7 |
| IOWA | 33 | 157 | 0.7 | 37 | 26,306 | 0.2 |
| ARKANSAS | 34 | 149 | 0.6 | 22 | 120,427 | 1.0 |
| COLORADO | 35 | 146 | 0.6 | 33 | 48,906 | 0.4 |
| WEST VIRGINIA | 36 | 118 | 0.5 | 31 | 63,747 | 0.5 |
| RHODE ISLAND | 37 | 105 | 0.4 | 39 | 15,772 | 0.1 |
| UTAH | 38 | 101 | 0.4 | 11 | 380,517 | 3.0 |
| PUERTO RICO | 39 | 98 | 0.4 | 25 | 88,907 | 0.7 |
| NEBRASKA | 40 | 80 | 0.3 | 40 | 15,559 | 0.1 |
| NEVADA | 41 | 71 | 0.3 | 44 | 10,197 | 0.1 |
| NEW MEXICO | 42 | 68 | 0.3 | 41 | 12,617 | 0.1 |
| VERMONT | 43 | 64 | 0.3 | 35 | 37,697 | 0.3 |
| DELAWARE | 44 | 62 | 0.3 | 38 | 18,873 | 0.1 |
| ALASKA | 45 | 60 | 0.3 | 49 | 2,761 | 0.0 |
| MONTANA | 46 | 51 | 0.2 | 45 | 8,733 | 0.1 |
| IDAHO | 47 | 40 | 0.2 | 46 | 6,108 | 0.0 |
| HAWAII | 48 | 35 | 0.1 | 47 | 3,561 | 0.0 |
| WYOMING | 49 | 25 | 0.1 | 51 | 1,642 | 0.0 |
| SOUTH DAKOTA | 50 | 20 | 0.1 | 52 | 1,272 | 0.0 |
| NORTH DAKOTA | 51 | 16 | 0.1 | 48 | 3,454 | 0.0 |
| DISTRICT OF COLUMBIA | 52 | 12 | 0.1 | 53 | 934 | 0.0 |
| GUAM | 53 | 9 | 0.0 | 54 | 408 | 0.0 |
| TRUST TERRITORIES | 54 | 3 | 0.0 | 50 | 2,022 | 0.0 |
| VIRGIN ISLANDS | 55 | 1 | 0.0 | 55 | 321 | 0.0 |
| TOTAL | | 23,560 | 100.0 | | 12,652,985 | 100.0 |

Note: Columns may not sum due to rounding.

Exhibits 3.10\$, 3.11, and 3.12 present the quantity of waste received and the number of TSD facilities receiving waste in each of the states. California (1.1 million tons), Ohio (720 thousand tons), and Michigan (560 thousand tons) reported receiving the largest quantities of waste. Texas (64), California (63), and Ohio (49) had the largest number of TSD facilities receiving waste.

Overall, 794 receivers reported receiving 8.2 million tons of waste. This represents a 4.5 million difference between the amount of waste reported shipped and the amount reported received. One reason for the difference may be related to non-reporting by neighboring facilities under the same corporate name. For example, the largest two shippers in the U.S., as shown in Exhibit 3.13!, reported shipping 2.8 tons of hazardous waste to neighboring facilities with the same corporate name. These receiving facilities did not report receiving the waste, suggesting that, while waste was transferred from one EPA ID to another, the management of this waste was more akin to on site treatment in an exempt wastewater treatment unit.

Exhibits 3.13! and 3.14" present listings of the 50 largest shippers and receivers, respectively, in the nation. The largest 50 shippers account for 48% of the total quantity shipped in the U.S. and the 50 largest receivers account for 59% of the total amount received.

National Biennial RCRA Hazardous Waste Report: Based on 1991 Data

Exhibit 3.10 Quantity of RCRA Hazardous Waste Received and Number of Receivers, by State, 1991

| STATE | RCRA HAZARDOUS WASTE QUANTITY | | | NUMBER OF RECEIVERS | | |
|----------------------|-------------------------------|------------------|--------------|---------------------|------------|--------------|
| | RANK | TONS RECEIVED | PERCENTAGE | RANK | NUMBER | PERCENTAGE |
| ALABAMA | 11 | 352,568 | 4.3 | 18 | 17 | 2.1 |
| ALASKA | 49 | 231 | 0.0 | 42 | 3 | 0.4 |
| ARIZONA | 35 | 12,245 | 0.1 | 35 | 7 | 0.9 |
| ARKANSAS | 17 | 128,985 | 1.6 | 26 | 11 | 1.4 |
| CALIFORNIA | 1 | 1,115,706 | 13.6 | 2 | 63 | 7.9 |
| COLORADO | 37 | 10,896 | 0.1 | 26 | 11 | 1.4 |
| CONNECTICUT | 31 | 32,598 | 0.4 | 20 | 14 | 1.8 |
| DELAWARE | 45 | 653 | 0.0 | 45 | 2 | 0.3 |
| DISTRICT OF COLUMBIA | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| FLORIDA | 19 | 114,130 | 1.4 | 8 | 28 | 3.5 |
| GEORGIA | 26 | 60,657 | 0.7 | 13 | 20 | 2.5 |
| GUAM | 50 | 98 | 0.0 | 49 | 1 | 0.1 |
| HAWAII | 41 | 2,607 | 0.0 | 39 | 4 | 0.5 |
| IDAHO | 32 | 32,256 | 0.4 | 36 | 6 | 0.8 |
| ILLINOIS | 6 | 474,441 | 5.8 | 5 | 37 | 4.7 |
| INDIANA | 4 | 540,210 | 6.6 | 6 | 34 | 4.3 |
| IOWA | 38 | 6,095 | 0.1 | 34 | 8 | 1.0 |
| KANSAS | 13 | 278,299 | 3.4 | 24 | 12 | 1.5 |
| KENTUCKY | 18 | 126,721 | 1.5 | 22 | 13 | 1.6 |
| LOUISIANA | 10 | 392,715 | 4.8 | 18 | 17 | 2.1 |
| MAINE | 43 | 1,358 | 0.0 | 45 | 2 | 0.3 |
| MARYLAND | 33 | 18,296 | 0.2 | 32 | 9 | 1.1 |
| MASSACHUSETTS | 25 | 62,949 | 0.8 | 20 | 14 | 1.8 |
| MICHIGAN | 3 | 563,575 | 6.9 | 9 | 26 | 3.3 |
| MINNESOTA | 20 | 92,264 | 1.1 | 13 | 20 | 2.5 |
| MISSISSIPPI | 40 | 2,739 | 0.0 | 28 | 10 | 1.3 |
| MISSOURI | 14 | 177,147 | 2.2 | 11 | 25 | 3.1 |
| MONTANA | 48 | 298 | 0.0 | 49 | 1 | 0.1 |
| NEBRASKA | 34 | 15,237 | 0.2 | 32 | 9 | 1.1 |
| NEVADA | 28 | 52,967 | 0.6 | 36 | 6 | 0.8 |
| NEW HAMPSHIRE | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| NEW JERSEY | 7 | 442,884 | 5.4 | 12 | 24 | 3.0 |
| NEW MEXICO | 46 | 580 | 0.0 | 39 | 4 | 0.5 |
| NEW YORK | 9 | 402,005 | 4.9 | 4 | 38 | 4.8 |
| NORTH CAROLINA | 29 | 46,316 | 0.6 | 13 | 20 | 2.5 |
| NORTH DAKOTA | 44 | 790 | 0.0 | 45 | 2 | 0.3 |
| OHIO | 2 | 714,568 | 8.7 | 3 | 49 | 6.2 |
| OKLAHOMA | 15 | 149,345 | 1.8 | 28 | 10 | 1.3 |
| OREGON | 16 | 132,612 | 1.6 | 42 | 3 | 0.4 |
| PENNSYLVANIA | 5 | 505,520 | 6.2 | 7 | 29 | 3.7 |
| PUERTO RICO | 30 | 39,224 | 0.5 | 38 | 5 | 0.6 |
| RHODE ISLAND | 36 | 11,079 | 0.1 | 42 | 3 | 0.4 |
| SOUTH CAROLINA | 8 | 437,594 | 5.3 | 22 | 13 | 1.6 |
| SOUTH DAKOTA | 47 | 370 | 0.0 | 45 | 2 | 0.3 |
| TENNESSEE | 21 | 75,762 | 0.9 | 28 | 10 | 1.3 |
| TEXAS | 12 | 286,677 | 3.5 | 1 | 64 | 8.1 |
| TRUST TERRITORIES | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| UTAH | 22 | 75,397 | 0.9 | 24 | 12 | 1.5 |
| VERMONT | 42 | 2,185 | 0.0 | 39 | 4 | 0.5 |
| VIRGINIA | 23 | 68,031 | 0.8 | 16 | 18 | 2.3 |
| VIRGIN ISLANDS | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| WASHINGTON | 24 | 64,658 | 0.8 | 9 | 26 | 3.3 |
| WEST VIRGINIA | 39 | 4,889 | 0.1 | 28 | 10 | 1.3 |
| WISCONSIN | 27 | 57,527 | 0.7 | 16 | 18 | 2.3 |
| WYOMING | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| TOTAL | | 8,186,950 | 100.0 | | 794 | 100.0 |

Note: Columns may not sum due to rounding.

Exhibit 3.11 Rank Ordering of States Based on Quantity of RCRA Hazardous Waste Received and Number of Receivers, 1991

| STATE | RCRA HAZARDOUS WASTE QUANTITY | | | NUMBER OF RECEIVERS | | |
|----------------------|-------------------------------|------------------|--------------|---------------------|------------|--------------|
| | RANK | TONS RECEIVED | PERCENTAGE | RANK | NUMBER | PERCENTAGE |
| CALIFORNIA | 1 | 1,115,706 | 13.6 | 2 | 63 | 7.9 |
| OHIO | 2 | 714,568 | 8.7 | 3 | 49 | 6.2 |
| MICHIGAN | 3 | 563,575 | 6.9 | 9 | 26 | 3.3 |
| INDIANA | 4 | 540,210 | 6.6 | 6 | 34 | 4.3 |
| PENNSYLVANIA | 5 | 505,520 | 6.2 | 7 | 29 | 3.7 |
| ILLINOIS | 6 | 474,441 | 5.8 | 5 | 37 | 4.7 |
| NEW JERSEY | 7 | 442,884 | 5.4 | 12 | 24 | 3.0 |
| SOUTH CAROLINA | 8 | 437,594 | 5.3 | 22 | 13 | 1.6 |
| NEW YORK | 9 | 402,005 | 4.9 | 4 | 38 | 4.8 |
| LOUISIANA | 10 | 392,715 | 4.8 | 18 | 17 | 2.1 |
| ALABAMA | 11 | 352,568 | 4.3 | 18 | 17 | 2.1 |
| TEXAS | 12 | 286,677 | 3.5 | 1 | 64 | 8.1 |
| KANSAS | 13 | 278,299 | 3.4 | 24 | 12 | 1.5 |
| MISSOURI | 14 | 177,147 | 2.2 | 11 | 25 | 3.1 |
| OKLAHOMA | 15 | 149,345 | 1.8 | 28 | 10 | 1.3 |
| OREGON | 16 | 132,612 | 1.6 | 42 | 3 | 0.4 |
| ARKANSAS | 17 | 128,985 | 1.6 | 26 | 11 | 1.4 |
| KENTUCKY | 18 | 126,721 | 1.5 | 22 | 13 | 1.6 |
| FLORIDA | 19 | 114,130 | 1.4 | 8 | 28 | 3.5 |
| MINNESOTA | 20 | 92,264 | 1.1 | 13 | 20 | 2.5 |
| TENNESSEE | 21 | 75,762 | 0.9 | 28 | 10 | 1.3 |
| UTAH | 22 | 75,397 | 0.9 | 24 | 12 | 1.5 |
| VIRGINIA | 23 | 68,031 | 0.8 | 16 | 18 | 2.3 |
| WASHINGTON | 24 | 64,658 | 0.8 | 9 | 26 | 3.3 |
| MASSACHUSETTS | 25 | 62,949 | 0.8 | 20 | 14 | 1.8 |
| GEORGIA | 26 | 60,657 | 0.7 | 13 | 20 | 2.5 |
| WISCONSIN | 27 | 57,527 | 0.7 | 16 | 18 | 2.3 |
| NEVADA | 28 | 52,967 | 0.6 | 36 | 6 | 0.8 |
| NORTH CAROLINA | 29 | 46,316 | 0.6 | 13 | 20 | 2.5 |
| PUERTO RICO | 30 | 39,224 | 0.5 | 38 | 5 | 0.6 |
| CONNECTICUT | 31 | 32,598 | 0.4 | 20 | 14 | 1.8 |
| IDAHO | 32 | 32,256 | 0.4 | 36 | 6 | 0.8 |
| MARYLAND | 33 | 18,296 | 0.2 | 32 | 9 | 1.1 |
| NEBRASKA | 34 | 15,237 | 0.2 | 32 | 9 | 1.1 |
| ARIZONA | 35 | 12,245 | 0.1 | 35 | 7 | 0.9 |
| RHODE ISLAND | 36 | 11,079 | 0.1 | 42 | 3 | 0.4 |
| COLORADO | 37 | 10,896 | 0.1 | 26 | 11 | 1.4 |
| IOWA | 38 | 6,095 | 0.1 | 34 | 8 | 1.0 |
| WEST VIRGINIA | 39 | 4,889 | 0.1 | 28 | 10 | 1.3 |
| MISSISSIPPI | 40 | 2,739 | 0.0 | 28 | 10 | 1.3 |
| HAWAII | 41 | 2,607 | 0.0 | 39 | 4 | 0.5 |
| VERMONT | 42 | 2,185 | 0.0 | 39 | 4 | 0.5 |
| MAINE | 43 | 1,358 | 0.0 | 45 | 2 | 0.3 |
| NORTH DAKOTA | 44 | 790 | 0.0 | 45 | 2 | 0.3 |
| DELAWARE | 45 | 653 | 0.0 | 45 | 2 | 0.3 |
| NEW MEXICO | 46 | 580 | 0.0 | 39 | 4 | 0.5 |
| SOUTH DAKOTA | 47 | 370 | 0.0 | 45 | 2 | 0.3 |
| MONTANA | 48 | 298 | 0.0 | 49 | 1 | 0.1 |
| ALASKA | 49 | 231 | 0.0 | 42 | 3 | 0.4 |
| GUAM | 50 | 98 | 0.0 | 49 | 1 | 0.1 |
| DISTRICT OF COLUMBIA | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| NEW HAMPSHIRE | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| TRUST TERRITORIES | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| VIRGIN ISLANDS | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| WYOMING | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| TOTAL | | 8,186,950 | 100.0 | | 794 | 100.0 |

Note: Columns may not sum due to rounding.

National Biennial RCRA Hazardous Waste Report: Based on 1991 Data

Exhibit 3.12 Rank Ordering of States Based on Number of Receiving Facilities, and Quantity of RCRA Hazardous Waste Received, 1991

| STATE | NUMBER OF RECEIVERS | | | RCRA HAZARDOUS WASTE QUANTITY | | |
|----------------------|---------------------|------------|--------------|-------------------------------|------------------|--------------|
| | RANK | NUMBER | PERCENTAGE | RANK | TONS RECEIVED | PERCENTAGE |
| TEXAS | 1 | 64 | 8.1 | 12 | 286,677 | 3.5 |
| CALIFORNIA | 2 | 63 | 7.9 | 1 | 1,115,706 | 13.6 |
| OHIO | 3 | 49 | 6.2 | 2 | 714,568 | 8.7 |
| NEW YORK | 4 | 38 | 4.8 | 9 | 402,005 | 4.9 |
| ILLINOIS | 5 | 37 | 4.7 | 6 | 474,441 | 5.8 |
| INDIANA | 6 | 34 | 4.3 | 4 | 540,210 | 6.6 |
| PENNSYLVANIA | 7 | 29 | 3.7 | 5 | 505,520 | 6.2 |
| FLORIDA | 8 | 28 | 3.5 | 19 | 114,130 | 1.4 |
| MICHIGAN | 9 | 26 | 3.3 | 3 | 563,575 | 6.9 |
| WASHINGTON | 9 | 26 | 3.3 | 24 | 64,658 | 0.8 |
| MISSOURI | 11 | 25 | 3.1 | 14 | 177,147 | 2.2 |
| NEW JERSEY | 12 | 24 | 3.0 | 7 | 442,884 | 5.4 |
| GEORGIA | 13 | 20 | 2.5 | 26 | 60,657 | 0.7 |
| MINNESOTA | 13 | 20 | 2.5 | 20 | 92,264 | 1.1 |
| NORTH CAROLINA | 13 | 20 | 2.5 | 29 | 46,316 | 0.6 |
| VIRGINIA | 16 | 18 | 2.3 | 23 | 68,031 | 0.8 |
| WISCONSIN | 16 | 18 | 2.3 | 27 | 57,527 | 0.7 |
| ALABAMA | 18 | 17 | 2.1 | 11 | 352,568 | 4.3 |
| LOUISIANA | 18 | 17 | 2.1 | 10 | 392,715 | 4.8 |
| CONNECTICUT | 20 | 14 | 1.8 | 31 | 32,598 | 0.4 |
| MASSACHUSETTS | 20 | 14 | 1.8 | 25 | 62,949 | 0.8 |
| KENTUCKY | 22 | 13 | 1.6 | 18 | 126,721 | 1.5 |
| SOUTH CAROLINA | 22 | 13 | 1.6 | 8 | 437,594 | 5.3 |
| KANSAS | 24 | 12 | 1.5 | 13 | 278,299 | 3.4 |
| UTAH | 24 | 12 | 1.5 | 22 | 75,397 | 0.9 |
| ARKANSAS | 26 | 11 | 1.4 | 17 | 128,985 | 1.6 |
| COLORADO | 26 | 11 | 1.4 | 37 | 10,896 | 0.1 |
| MISSISSIPPI | 28 | 10 | 1.3 | 40 | 2,739 | 0.0 |
| OKLAHOMA | 28 | 10 | 1.3 | 15 | 149,345 | 1.8 |
| TENNESSEE | 28 | 10 | 1.3 | 21 | 75,762 | 0.9 |
| WEST VIRGINIA | 28 | 10 | 1.3 | 39 | 4,889 | 0.1 |
| MARYLAND | 32 | 9 | 1.1 | 33 | 18,296 | 0.2 |
| NEBRASKA | 32 | 9 | 1.1 | 34 | 15,237 | 0.2 |
| IOWA | 34 | 8 | 1.0 | 38 | 6,095 | 0.1 |
| ARIZONA | 35 | 7 | 0.9 | 35 | 12,245 | 0.1 |
| IDAHO | 36 | 6 | 0.8 | 32 | 32,256 | 0.4 |
| NEVADA | 36 | 6 | 0.8 | 28 | 52,967 | 0.6 |
| PUERTO RICO | 38 | 5 | 0.6 | 30 | 39,224 | 0.5 |
| HAWAII | 39 | 4 | 0.5 | 41 | 2,607 | 0.0 |
| NEW MEXICO | 39 | 4 | 0.5 | 46 | 580 | 0.0 |
| VERMONT | 39 | 4 | 0.5 | 42 | 2,185 | 0.0 |
| ALASKA | 42 | 3 | 0.4 | 49 | 231 | 0.0 |
| OREGON | 42 | 3 | 0.4 | 16 | 132,612 | 1.6 |
| RHODE ISLAND | 42 | 3 | 0.4 | 36 | 11,079 | 0.1 |
| DELAWARE | 45 | 2 | 0.3 | 45 | 653 | 0.0 |
| MAINE | 45 | 2 | 0.3 | 43 | 1,358 | 0.0 |
| NORTH DAKOTA | 45 | 2 | 0.3 | 44 | 790 | 0.0 |
| SOUTH DAKOTA | 45 | 2 | 0.3 | 47 | 370 | 0.0 |
| GUAM | 49 | 1 | 0.1 | 50 | 98 | 0.0 |
| MONTANA | 49 | 1 | 0.1 | 48 | 298 | 0.0 |
| DISTRICT OF COLUMBIA | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| NEW HAMPSHIRE | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| TRUST TERRITORIES | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| VIRGIN ISLANDS | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| WYOMING | 51 | 0 | 0.0 | 51 | 0 | 0.0 |
| TOTAL | | 794 | 100.0 | | 8,186,950 | 100.0 |

Note: Columns may not sum due to rounding.

Exhibit 3.13 Fifty Largest RCRA Hazardous Waste Shippers in the U.S., 1991

| RANK | EPA ID | NAME | CITY | TONS SHIPPED |
|-------|---------------|--|-------------------|--------------|
| 1 | CTD990672081 | PRATT & WHITNEY AIRCRAFT GROUP MD&CPD | EAST HARTFORD,CT | 1,682,540 |
| 2 | TXD0005942438 | AMOCO CHEMICAL COMPANY - PLANT B SITE | TEXAS CITY,TX | 1,161,508 |
| 3 | UTD000826446 | KENNECOTT UTAH COPPER - SMELTER | MAGNA,UT | 357,904 |
| 4 | NYD002126852 | GMC HARRISON DIVISION | LOCKPORT,NY | 268,813 |
| 5 | MID980568836 | GMC TRUCK AND BUS DIV PONTIAC WEST | PONTIAC,MI | 205,476 |
| 6 | SCD042627448 | MTM HARDWICK INC. | ELGIN,SC | 176,838 |
| 7 | MAD053452637 | CLEAN HARBORS OF BRAINTREE | BRAINTREE,MA | 150,064 |
| 8 | KSD007249980 | ELF ATOCHEM NORTH AMERICA, INC | WICHITA,KS | 118,820 |
| 9 | TXD073912974 | INTERCONTINENTAL TERMINALS | DEER PARK,TX | 106,482 |
| 10 | MID000724831 | MICHIGAN DISPOSAL, INC. | BELLEVILLE,MI | 96,320 |
| 11 | IND093219012 | HERITAGE ENVIRONMENTAL SERVICES | INDIANAPOLIS,IN | 96,013 |
| 12 | ALD000622464 | CHEMICAL WASTE MANAGEMENT INC | EMELLE,AL | 83,001 |
| 13 | LAD000777201 | CHEMICAL WASTE MANAGEMENT | SULPHUR,LA | 81,048 |
| 14 | ALD981020894 | FISHER INDUSTRIAL SERVICE, INC | GADSDEN,AL | 80,071 |
| 15 | TXD058265067 | ARCO CHEMICAL COMPANY - BAYPORT | PASADENA,TX | 65,744 |
| 16 | IND005462601 | LTV STEEL COMPANY | EAST CHICAGO,IN | 64,654 |
| 17 | TXD000742304 | GIBALTAR CHEMICAL RESOURCES | WINONA,TX | 58,013 |
| 18 | IND078911146 | CHEMICAL WASTE MGMT OF INDIANA | FORT WAYNE,IN | 56,631 |
| 19 | NYD002069748 | CIBA-GEIGY | QUEENSBURY,NY | 52,825 |
| 20 | NJD991291105 | S & W WASTE, INC. | SOUTH KEARNY,NJ | 51,841 |
| 21 | ARD069748192 | ENSCO INC | EL DORADO,AR | 51,560 |
| 22 | NYD980536288 | E I DUPONT DE NEMOURS & CO | NIAGARA FALLS,NY | 50,747 |
| 23 | MID027637693 | LAKESHORE ELECTRO-PLATE INC | BENTON HARBOR,MI | 50,400 |
| 24 | PRD980526180 | ANTILLES ELECTROPLATING | BAYAMON,PR | 45,717 |
| 25 | KYD053348108 | SAFETY-KLEEN CORP. | NEW CASTLE,KY | 43,408 |
| 26 | ILD005174404 | TEEPAK INC | DANVILLE,IL | 42,191 |
| 27 | NJD002200046 | CYCLE CHEM INC | ELIZABETH,NJ | 41,457 |
| 28 | ALD070513767 | M & M CHEMICAL COMPANY | ATTALLA,AL | 41,422 |
| 29 | IND040289357 | DANA CORPORATION PC PRODUCTS DIVISION | HAGERSTOWN,IN | 38,280 |
| 30 | NYD000688606 | ANHEUSER-BUSCH INC | BALDWINVILLE,NY | 36,669 |
| 31 | WID098547854 | METRO RECYCLING AND DISPOSAL FACILITY | FRANKLIN,WI | 36,333 |
| 32 | NJD001700707 | MONSANTO COMPANY | BRIDGEPORT,NJ | 35,789 |
| 33 | LAD079464095 | LIDLAW ENVIRONMENTAL SERVICES | CROWLEY,LA | 35,220 |
| 34 | OHD000724088 | EAGLEBROOK OF OHIO INC. | CLEVELAND,OH | 34,995 |
| 35 | NJD002173946 | EI DUPONT DENEMOURS & CO | POMPTON LAKES,NJ | 34,928 |
| 36 | PAD002375376 | U.S. STEEL CORPORATION FAIRLESS WORKS | FAIRLESS HILLS,PA | 34,223 |
| 37 | TXD008080533 | AMOCO OIL COMPANY REFINERY | TEXAS CITY,TX | 32,577 |
| 38 | OHD004218673 | LTV STEEL CO., INC. (CLEVELAND-EAST) | CLEVELAND,OH | 31,593 |
| 39 | CA7170090016 | NAVAL AIR STATION NORTH ISLAND | SAN DIEGO,CA | 31,120 |
| 40 | ORD991281460 | BERGSOE METAL CORPORATION | ST. HELENS,OR | 30,897 |
| 41 | CAD981166002 | SACRAMENTO GAS LOAD CENTER PACIFIC GAS A | SACRAMENTO,CA | 30,329 |
| 42 | PAD990753089 | GENERAL BATTERY CORPORATION | READING,PA | 29,547 |
| 43 | NJD986577195 | AMERICAN REF-FUEL CONSTRUCT | NEWARK,NJ | 29,302 |
| 44 | LAD000618298 | CECOS INTERNATIONAL | LIVINGSTON,LA | 28,795 |
| 45 | MID006014666 | LACKS INDUSTRIES INC | GRAND RAPIDS,MI | 28,673 |
| 46 | TXD066362559 | CHAPARREL STEEL COMPANY | MIDLOTHIAN,TX | 28,470 |
| 47 | NJD002016103 | ADVANCED FIBER TECHNOLOGIES | HACKENSACK,NJ | 28,030 |
| 48 | OHD046203774 | LTV STEEL CO., INC. (CLEVELAND-WEST) | CLEVELAND,OH | 27,739 |
| 49 | IND006050967 | ELI LILLY & CO.-TIPPECANOE LABORATORIES | SHADELAND,IN | 27,503 |
| 50 | NJD062037031 | EXXON BAYWAY REFINERY | LINDEN,NJ | 27,155 |
| TOTAL | | | | 6,079,670 |

Notes:

- Columns may not sum due to rounding.
- CBI data are excluded from this exhibit.

National Biennial RCRA Hazardous Waste Report: Based on 1991 Data

Exhibit 3.14 Fifty Largest RCRA Hazardous Waste Receivers in the U.S., 1991

| RANK | EPA ID | NAME | CITY | TONS RECEIVED |
|--------------|--------------|---|-------------------|------------------|
| 1 | CAD008274938 | KAISER STEEL RESOURCES, INC. | FONTANA,CA | 483,736 |
| 2 | NJD002385730 | E.I. DUPONT-CHAMBERS WORKS | DEEPWATER,NJ | 227,712 |
| 3 | PAD002395887 | HORSEHEAD RESOURCE DEVELOPMENT CO INC | PALMERTON,PA | 210,042 |
| 4 | ALD000622464 | CHEMICAL WASTE MANAGEMENT INC | EMELLE,AL | 206,869 |
| 5 | SCD991278607 | MTM AMERICAS INC-HARDWICK DIVISION | LUGOFF,SC | 175,413 |
| 6 | NYD049836679 | CWM CHEMICAL SERVICES, INC. | MODEL CITY,NY | 174,090 |
| 7 | IND078911146 | CHEMICAL WASTE MGMT OF INDIANA | FORT WAYNE,IN | 150,564 |
| 8 | LAD000777201 | CHEMICAL WASTE MANAGEMENT | SULPHUR,LA | 147,684 |
| 9 | MID000724831 | MICHIGAN DISPOSAL, INC. | BELLEVILLE,MI | 144,946 |
| 10 | ORD089452353 | CHEMICAL WASTE MANAGEMENT OF THE NW | ARLINGTON,OR | 132,549 |
| 11 | OKD065438376 | U.S. POLLUTION CONTROL, INC. | WAYNOKA,OK | 126,133 |
| 12 | KSD007482029 | VULCAN MATERIALS COMPANY | WICHITA,KS | 123,295 |
| 13 | CAT000646117 | CHEMICAL WASTE MGMT INC/KETTLE | KETTLEMAN CITY,CA | 122,674 |
| 14 | MID048090633 | WAYNE DISPOSAL, INC. | BELLEVILLE,MI | 111,015 |
| 15 | IND093219012 | HERITAGE ENVIRONMENTAL SERVICES | INDIANAPOLIS,IN | 92,211 |
| 16 | SCD070375985 | GSX SERVICES OF SC INC. | PINEWOOD,SC | 90,821 |
| 17 | ILD000805812 | PEORIA DISPOSAL CO #1 | PEORIA,IL | 88,834 |
| 18 | IND980503890 | HERITAGE ENVIRONMENTAL SERVICES | ROACHDALE,IN | 85,560 |
| 19 | ILD010284248 | CID RECYCLING & DISPOSAL FAC | CALUMET CITY,IL | 82,904 |
| 20 | MOD029729688 | HOLNAM INC./SAFETY-KLEEN | CLARKSVILLE,MO | 80,771 |
| 21 | LAD981057706 | MARINE SHALE PROCESSORS INC | AMELIA,LA | 80,107 |
| 22 | OH0000724088 | EAGLEBROOK OF OHIO INC. | CLEVELAND,OH | 77,648 |
| 23 | MID980615298 | PETRO-CHEM PROCESSING INC | DETROIT,MI | 75,930 |
| 24 | SCD003368891 | HOLNAM INC./SAFETY KLEEN | HOLLY HILL,SC | 74,892 |
| 25 | CAT080011059 | PETROLEUM RECYCLING CORPORATION | SIGNAL HILL,CA | 73,062 |
| 26 | KSD980633259 | SYSTECH ENVIRONMENTAL | FREDONIA,KS | 71,668 |
| 27 | MID074259565 | DYNECOL INC | DETROIT,MI | 70,412 |
| 28 | UTD991301748 | U.S. POLLUTION CONTROL, INC. GRASSY MTN | KNOLLS,UT | 69,613 |
| 29 | ARD981512270 | ASH GROVE CEMENT CO | FOREMAN,AR | 69,569 |
| 30 | KSD031203318 | ASH GROVE CEMENT PLANT | CHANUTE,KS | 67,588 |
| 31 | NYD080336241 | CECOS INTERNATIONAL INC | NIAGARA FALLS,NY | 64,783 |
| 32 | PAD004835146 | MILL SERVICE, INC. - YUKON PLANT | YUKON,PA | 63,482 |
| 33 | MOD050232560 | RIVER CEMENT CO. | FESTUS,MO | 63,081 |
| 34 | PAD010154045 | ENVIRITE CORPORATION | YORK,PA | 60,877 |
| 35 | ILD000666206 | ENVIRITE CORP | HARVEY,IL | 60,059 |
| 36 | MND006148092 | GOPHER SMELTING & REFINING CO | EAGAN,MN | 58,890 |
| 37 | MAD053452637 | CLEAN HARBORS OF BRAINTREE | BRAINTREE,MA | 53,117 |
| 38 | KYD053348108 | SAFETY-KLEEN CORP. | NEW CASTLE,KY | 50,815 |
| 39 | NVT330010000 | U.S. ECOLOGY | BEATTY,NV | 48,939 |
| 40 | NJD002182897 | SAFETY KLEEN CORP | LINDEN,NJ | 48,256 |
| 41 | TXD083472266 | ARCO CHEMICAL COMPANY/CHANNELVIEW | CHANNELVIEW,TX | 47,982 |
| 42 | ALD070513767 | M & M CHEMICAL COMPANY | ATTALLA,AL | 47,582 |
| 43 | MID981200835 | SYSTECH ENVIRONMENTAL/LAFARGE CORP. | ALPENA,MI | 46,735 |
| 44 | IND005081542 | ESSROC MATERIALS, INC | LOGANSPOUT,IN | 46,668 |
| 45 | WID000808824 | HYDRITE CHEMICAL COMPANY-EAST | COTTAGE GROVE,WI | 46,108 |
| 46 | TXD000742304 | GIBALTAR CHEMICAL RESOURCES | WINONA,TX | 45,053 |
| 47 | ILD980613913 | SAFETY KLEEN ENVIROSYSTEMS CO | DOLTON,IL | 45,041 |
| 48 | CAD008302903 | OIL & SOLVENT PROCESS COMPANY | AZUSA,CA | 43,963 |
| 49 | IND006419212 | LONE STAR INDUSTRIES INC | GREENCASTLE,IN | 42,159 |
| 50 | PAD002389559 | KEYSTONE CEMENT COMPANY | BATH,PA | 40,977 |
| TOTAL | | | | 4,812,877 |

Notes:

- Columns may not sum due to rounding.
- CBI data are excluded from this exhibit.

4.0 IMPORTS AND EXPORTS

Exhibits 4.1# and 4.2 present hazardous waste imports and exports, by region and by state, respectively. Only those quantities of waste that enter or leave the state are counted in this category. Exhibit 4.1 shows Region 5 is the largest net exporting region (1.1 million tons), followed by Region 4 (716 thousand tons). Region 5 is the largest net importing region (1.3 million tons), followed by Region 4 (716 thousand tons). Exhibit 4.2 shows New Jersey is the largest net exporting state (400 thousand tons), followed by Pennsylvania (355 thousand tons). Ohio, with 399 thousand tons, is the largest net importing state, followed by followed by New Jersey (287 thousand tons).

Exhibit 4.1 RCRA Hazardous Waste Imports and Exports, by EPA Region, 1991

| EPA REGION | TOTAL IMPORTS (TONS) | TOTAL EXPORTS (TONS) | NET IMPORTS (IMPORTS- EXPORTS) |
|--------------|-------------------------|-------------------------|--------------------------------------|
| 1 | 53,130 | 406,567 | -353,437 |
| 2 | 460,413 | 654,241 | -193,828 |
| 3 | 318,512 | 559,505 | -240,993 |
| 4 | 716,441 | 743,601 | -27,160 |
| 5 | 1,258,354 | 1,098,263 | 160,091 |
| 6 | 653,229 | 649,187 | 4,042 |
| 7 | 305,390 | 169,302 | 136,088 |
| 8 | 69,712 | 74,763 | -5,050 |
| 9 | 82,505 | 210,594 | -128,089 |
| 10 | 129,132 | 145,291 | -16,159 |
| TOTAL | 4,046,819 | 4,711,314 | -664,496 |

Note: Columns may not sum due to rounding.

National Biennial RCRA Hazardous Waste Report: Based on 1991 Data

Exhibit 4.2 RCRA Hazardous Waste Imports, Exports, and Net difference between Imports and Exports by State, 1991

| STATE | IMPORTS (TONS) | EXPORTS (TONS) | NET (IMPORTS-EXPORTS) |
|----------------------|------------------|------------------|--------------------------|
| ALABAMA | 270,803 | 162,844 | 107,959 |
| ALASKA | 0 | 2,566 | -2,566 |
| ARIZONA | 4,913 | 34,739 | -29,826 |
| ARKANSAS | 112,703 | 106,225 | 6,478 |
| CALIFORNIA | 32,411 | 168,343 | -135,932 |
| COLORADO | 2,340 | 42,874 | -40,534 |
| CONNECTICUT | 15,312 | 107,054 | -91,742 |
| DELAWARE | 400 | 18,513 | -18,113 |
| DISTRICT OF COLUMBIA | 0 | 934 | -934 |
| FLORIDA | 36,123 | 62,668 | -26,545 |
| GEORGIA | 24,620 | 89,196 | -64,575 |
| GUAM | 2 | 140 | -138 |
| HAWAII | 345 | 1,960 | -1,615 |
| IDAHO | 28,877 | 3,160 | 25,718 |
| ILLINOIS | 253,369 | 276,198 | -22,829 |
| INDIANA | 286,458 | 235,226 | 51,231 |
| IOWA | 2,080 | 22,354 | -20,273 |
| KANSAS | 144,488 | 34,577 | 109,911 |
| KENTUCKY | 106,362 | 145,420 | -39,058 |
| LOUISIANA | 252,643 | 173,087 | 79,557 |
| MAINE | 380 | 11,685 | -11,305 |
| MARYLAND | 8,353 | 72,737 | -64,385 |
| MASSACHUSETTS | 27,114 | 224,449 | -197,335 |
| MICHIGAN | 246,306 | 224,851 | 21,455 |
| MINNESOTA | 69,511 | 43,567 | 25,944 |
| MISSISSIPPI | 1,715 | 35,544 | -33,829 |
| MISSOURI | 144,603 | 97,038 | 47,565 |
| MONTANA | 0 | 8,435 | -8,435 |
| NEBRASKA | 14,219 | 15,333 | -1,114 |
| NEVADA | 44,834 | 3,391 | 41,444 |
| NEW HAMPSHIRE | 0 | 11,130 | -11,130 |
| NEW JERSEY | 287,386 | 399,733 | -112,347 |
| NEW MEXICO | 32 | 12,588 | -12,555 |
| NEW YORK | 172,770 | 192,148 | -19,378 |
| NORTH CAROLINA | 27,575 | 75,682 | -48,107 |
| NORTH DAKOTA | 272 | 3,415 | -3,143 |
| OHIO | 398,718 | 245,565 | 153,153 |
| OKLAHOMA | 128,046 | 66,969 | 61,077 |
| OREGON | 80,677 | 18,366 | 62,311 |
| PENNSYLVANIA | 278,929 | 355,403 | -76,475 |
| PUERTO RICO | 256 | 62,039 | -61,782 |
| RHODE ISLAND | 9,020 | 14,780 | -5,761 |
| SOUTH CAROLINA | 197,588 | 70,349 | 127,239 |
| SOUTH DAKOTA | 114 | 1,249 | -1,135 |
| TENNESSEE | 51,654 | 101,897 | -50,243 |
| TEXAS | 159,805 | 290,319 | -130,514 |
| TRUST TERRITORIES | 0 | 2,022 | -2,022 |
| UTAH | 66,986 | 17,148 | 49,839 |
| VERMONT | 1,305 | 37,470 | -36,164 |
| VIRGIN ISLANDS | 0 | 321 | -321 |
| VIRGINIA | 27,226 | 58,835 | -31,609 |
| WASHINGTON | 19,577 | 121,199 | -101,621 |
| WEST VIRGINIA | 3,604 | 53,083 | -49,479 |
| WISCONSIN | 3,993 | 72,856 | -68,863 |
| WYOMING | 0 | 1,642 | -1,642 |
| TOTAL | 4,046,819 | 4,711,314 | -664,496 |

Note: Columns may not sum due to rounding.

